

DYNAMIC FORCES OF ORGANIZATIONAL CHANGE: ALIGNMENT OF INTERESTS
& IMPOSITION OF IDENTITY

JONATHAN TANNER

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Abstract

We shape our tools and thereafter our tools shape us*

**Attributed to John M Culkin, Marshall McLuhan and Winston Churchill*

Organizations need to be aware of the drivers for change and how to prepare, plan, lead and implement programmes designed to meet these challenges. Organizational change has often been approached as either a change of staffing structure or a change in technology but commonly these changes are intimately interconnected.

For organizational changes to succeed it is necessary for managers to negotiate new staff roles (identities) and to persuade staff to disengage from their existing teams and structures and to align to new structures (networks of association). This study examines the introduction of technology for use by administrative staff in a Higher Education Institution and how their interests were aligned, and identities re-negotiated. There is comparatively little investigation into the impact of change on Higher Education Professional Services staff. This work seeks further understanding in this area.

The study made use of a series of convergent interviews, participant observation and document analysis carried out as a case study. The specific case detailed here was part of a planned programme of organizational and technological change. Interviews revealed that administrative staff role identities had changed significantly over time but in this instance the driver for change and the success of the project was the convergence of structure and technology.

Data was analysed through the lens of Actor-Network Theory (ANT) which allows for the consideration of the social and material (technical) aspects of the case. ANT has a reputation for being difficult to operationalise in the field but for this research project, the method was used as a guide to assist with the identification of stakeholders and as a technique to aid data analysis.

Analysis suggests that for change programmes to be successful it is necessary for managers to have local champions (allies) communicating the benefits, a good understanding of existing interests and identities that need to be re-aligned and the influence of other networks that could act to destabilise (betray) the new network. The outcome of the research is a new model, the Dynamic Forces of Organizational Change that brings together the elements of Fisher's Personal Transition Curve with ANT's four moments of Translation. The model is designed to help those involved in change programmes to better understand the dynamic forces that need to be brought into alliances and to fend off those that could potentially disrupt planned change.

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I would like to thank David Clemson for introducing me to the concept of the Rhizome by Gilles Deleuze and Félix Guattari which led me to discover Actor-Network Theory.

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Abbreviations

Acronym	Definition
ANT	Actor-Network Theory
BLE	Bloomsbury Learning Environment
CAB	Change Advisory Board
CCO	Communicative Constitution of Organization
CI	Convergent interviewing
CRM	Customer Relationship Management
DBA	Doctor of Business Administration
DoPS	Directors of Professional Services
EB	Executive Board
FA	Faculty Administration
HE	Higher Education
HEI	Higher Education Institution
HESA	Higher Education Statistics Agency
HoDs	Heads of Department
HR	Human Resources
HUB	Registry Administration Office
ICT	Information and Communication Technologies
IM	Instant Messaging
IS	Information systems
ISD	IT Service Desk
ICT	Information and Communication Technology
ITIL	Information Technology Infrastructure Library
KPI's	Key Performance Indicators
LGA	Local Government Association
LIS	Library and Information Services
LSS	Law and Social Sciences
MIS	Management Information Systems
NSS	National Students Survey
NVivo	Qualitative data analysis software

Acronym	Definition
OGC	Office of Government Commerce
OIA	Office of the Independent Adjudicator
OPP	Obligatory Passage Point
PID	Project Initiation Document
PM	Project Manager
PMO	Project Management Office
PRINCE2	Projects in Controlled Environments
QDA	Qualitative data analysis
QDAS	Qualitative data analysis software
REF	Research Excellence Framework
RPC	Resources and Planning Committee
SID	Student Information Desk
SLA	Service Level Agreement
TEF	Teaching Excellence and Student Outcomes Framework
TQM	Total Quality Management
UCU	University College Union
UI	User Interface
UNITe	Student Information System
VLE	Virtual Learning Environment

Overview of the chapters

Chapter 1 introduces the study and provides the context, background and reason for undertaking the study. The personal motivation of the researcher is provided followed by the research aims, objectives and research questions. This is followed by the purpose and objectives of the study. The research methodology and design are introduced along with the research paradigm. This is followed by a section on the research methodology, research strategy and an overview of the various research approaches. Philosophical concerns relating to research generally and specific to this project are considered and the research methods selected for this project are examined. This is followed by a section covering research ethics.

Chapter 2 introduces the case study and the rationale for the use of a single case study. Following on from this is a section covering the relationship between the case study and Actor-Network Theory (ANT). The process of sampling is explained and there is an explanation of the process of convergent interviewing (CI). The research site is introduced along with an overview of the data collection methods used including interviewing, participant observation and documents collection, review and analysis and the use of technological artefacts. Data analysis is briefly introduced and there is an analysis of the limitations of the use of the qualitative analysis software NVivo.

Chapter 3 is the literature review which describes and comments on changes to university student support structures, plots the development of the student as a customer and the associated development of the customer service ethos in the areas of university library and IT service desks and associated standards and how these have influenced university professional service teams. The drivers of organizational change, change management and the influence of technology on organizational change are introduced. Language used to describe and attempts to define the changing relationship between students and institutions are outlined. The increasing focus and importance of student satisfaction and student experience are examined in the light of the organizational restructuring. ANT is introduced including core terminology, issues relating to ANT ontology, micro and macro levels of analysis, core principles including a discussion on the agency of non-human actors. Issues relating to organizational and team identity are introduced specifically through the lens of ANT and the imposition of identity and identity change.

Chapter 4 provides a description of the process of data collection, the identification of the key actors involved with the case and descriptions of each of the key actors and their role in the organization and the change programme. The Student Information Desk (SID) system is introduced as a key actor alongside other actors involved with the introduction and implementation of the system. The process of the organizational change is described using a descriptive case study based on the chronology of events. The overarching organizational restructuring is introduced, and issues of technology adoption and associated team identity change and imposition of new identities are explored.

Chapter 5 introduces the analytical methods used to analyse data collected for the project and includes an overview of thematic analysis, questions developed from an analysis of transcripts, NVivo queries developed from these questions as a method of extracting data from transcripts and an in-depth analysis of the case using supporting evidence from transcripts and documents. Concepts from ANT are used as a lens through which to contextualise and this brings to light issues of competing forces, resistance to change and technology adoption and ultimately to the imposition of new identities through the alignment of interests that emerge as a result of the organizational restructuring.

Chapter 6 sets out the conclusions reached because of carrying out the research, describes the implications of the research and gives a critique of the research methods used, specifically CI and the use of ANT in an organisational setting. Implications for the organization and broader generalizations are outlined. The role of the researcher and policy suggestions are also outlined. The chapter develops ideas for a novel model of change that incorporates elements from both ANT and Fishers' Personal Transition Curve.

Chapter 1 Introduction to the Study

This chapter introduces the context, background and reason for undertaking the study. The personal motivation of the researcher is provided followed by the research aims, objectives and research questions. This is followed by the purpose and objectives of the study. The research methodology and design are introduced along with the research paradigm. The research methodology, research strategy is described, and an overview of the various research approaches is provided. Philosophical concerns relating to research generally and specific to this project are considered and the research methods selected for this project were examined. The chapter concludes with a section on research ethics.

1.1 Background and significance

The United Kingdom university sector twenty-five years (Graham, 2013). Changes affecting the sector have been traced to the introduction of student fees, the regulatory framework professional support services. Alongside these changes has been a recent shift toward the 'professionalization' of the sector with the introduction of financial management systems, business partnering and the de-centralisation of services out to Faculties or Schools (Whitchurch, 2008) These changes have (Whitchurch, 2008) professionalization (Sebalj *et al.* , 2012).

Professional support teams including library and administrative staff have often been at the forefront of technology related change and these changes can lead to changes in the identity of teams and individuals (Graham, 2013). The impact of technologies on administrative staff in universities is an under researched area (Graham, 2013).

This research explores an organisational change project in a central London Higher Education Institution known in this study as XXX University. The research project is focused on three Faculty-based administrative teams and the central student Registry team. The project is concerned with the introduction of a student service desk system and how this results in the development of new heterogeneous networks of association and the imposition of new team identities. The research examines the introduction of an online student enquiry service desk system or virtual Hub which is part of the development of a new Student Hub building.

The research project is concerned with an organizational change that significantly impacts administrative roles and how the change plan leads to four distinct teams being restructured to meet the goals of the change programme.

ICT as a communication medium has been in use since the early 1970's starting in significant terms with the development and introduction of email (Peter, 2004). The development of advanced Internet technologies in the 1990's and 2000's with Web 2.0 allowing users to interact directly with each other through web only pages has led to the emergence of new methods of peer-to-peer communication. These include Instant Messaging (IM), blogging, social media products such as Facebook and Twitter and extensions of these into the business arena with products that allow company staff to write business related blogs, contact each other and customers through 'closed' IM systems and send short business-related messages using micro-blogging tools. Business tools encompassing these tools are known as Enterprise Social Networks (E2.0), IBM's Connection's is one example ("IBM Enterprise Social Networks", 2016, Maamar, 2009, McAfee, 2009, McAfee, 2006).

The development of Web 2.0 blogging and social media technologies over the past 10 – 15 years has become a way of life of many people in the Western World. Being connected to groups and friends via the internet is nowadays considered normal. In the commercial world, the introduction of Web 2.0 technologies has had the effect of shrinking distances between customers and businesses and raising customer expectations.

The number of organizations that have implemented Enterprise Social Networks is probably not at the level that was expected in the 2000's but it is unlikely that any major company or organization today will not be using some communication tools derived from these technologies. The most obvious aspect of this is the direct use of external social media sites such as Facebook, Twitter or Snapchat for marketing and advertising purposes or using IM services offering immediate customer / organization communications, to email and systems that allow customers to post a ticket to a helpdesk.

The use of these technologies is not only externally facing but also internally facing with IT helpdesk systems allowing staff to post tickets about system failures and hardware breakdown's. The use of helpdesk systems has been common since the 1980's (Small, 2013) and the introduction of service standards such as IT Infrastructure Library (ITIL) have influenced the development of broader customer service standards.

The Higher Education sector has been in a state of continuous change since 1992 when Polytechnics were granted University status and subsequently student support grants were removed, and tuition fees introduced in 1998. The introduction of tuition fees has probably been the most significant change in UK Higher Education policy and has

resulted in higher student expectations want to communicate with these want to communicate with these.

Previous studies have shown how changing student expectations have led to the introduction of several student focused questionnaires designed to test levels of student satisfaction. The most well-known of these is the National Students Survey (NSS). The NSS directly links to a number of national league tables and these have in effect influenced university curricula, assignment feedback processes and the provision and quality of a wide range of student support services (Harvey *et al.*, 1993).

There are very few previous studies into the development and use of student support service desk systems in the university sector outside of their use in the academic library. The introduction of new technological systems often goes together with organizational change and these two elements can bring high levels of complexity to a change situation.

ICT service desks have led to ICT support desks where a wider range of services have been offered. Running alongside the development of curriculum change and IT support has been the development of university academic library services. Over the past 20 years library services have become highly responsive to the increasing demands of students and have been at the forefront of developing online services, extended hours, Instant Messaging (IM), using social media and using IT based support services including self-help and intelligent systems (Long, 2012, Blevins, Amy, DeBerg, & Kiscaden, 2016).

Previous studies have shown that there is a large body of research into the impact of technology on organizations and organizing (De Sanctis & Poole, 1994, Taesung & Kim, 2015). Technology has not only had an impact on the internal organization of companies but also on social structures within organizations and external to organizations.

Over the past 20 years there has been an on-going discussion about the changing identity of students and a range of metaphors have been employed to represent these changes over time (Tight, 2013, McCulloch, 2009). Terms such as student, customer, learning-partners etc. have been employed as ways of describing the changing relationship between student and higher education institution and what is seen by some as the creeping commercialisation or marketization of the sector.

Earlier research has shown that IT and library service staff seem to have been at the forefront of facing up to this challenge and have developed responsive services as a result. There is a significant body of research into the university academic library and IT

services in universities but one area that is under-researched is into administrative student support teams and their positive impact and contribution to learning and teaching (Graham, 2013). These teams have historically acted as a bridge between academic departments and academic staff and students on taught or research programmes. Administrative service teams provide a wide range of services including exam and assignment marks entry, drafting letters on behalf of students, acting as secretaries to various committees and exam boards and managing and using increasingly complex software suits.

Historically administrative student support teams (based in faculties, departments or depending on organizational structure within a professional service team such as Registry) have been 'student facing' often working within reception offices and meeting students face-to-face especially during periods when coursework is being submitted or when students have had questions regarding their programme of study.

Recently though universities have been looking at and buying into service desk software to support student communication with administrative teams. This has resulted in changes to how services are organized and has changed some teams from front to back office services where previously students needed to attend in person to submitting coursework online and being able to communicate with administrators via service desk software.

The analysis of the case study uses core elements from ANT. ANT has been used since the late 1980's as a methodological tool and theory for investigating Information systems (IS) and has been used to investigate issues of alignment of interests and the imposition of identity. These themes are more fully investigated in the literature review.

1.2 Rationale for the Study

The rationale for undertaking this study is that there has been little investigation into the impact of organizational and technological change on administrative staff in Higher Education Institutions (Graham, 2013) and that the use of ANT as a lens for the investigation should be able to provide novel insights into the dynamics of change processes that include organizational change, technological change and human and technical actors. It is also clear from the literature review that there has been little research into the area of organizational and technological change being carried out concurrently and the dynamic forces between these. How these dynamic forces impact on teams' willingness to align with the new structures and whether alternative or new identities are adopted. The application of ANT in the field of Higher Education has been

mainly restricted to exploring the area of teaching and learning and education policy (Fenwick and Edwards, 2011), (Fenwick and Landri, 2012). Using ANT as a lens to examine and analyse the impact of change on administrative staff in a Higher Education Institution is unique to this study and sheds new light on this under-researched area.

1.3 Personal Motivation

I have had an interest in organizations and organizing for many years both from a professional and a personal perspective. Organizations and institutions are part of the life of most people from birth to death and how organizations come into being, organize themselves, create success or fail is something that is of enormous interest to me. Organizations have been at the forefront of social and technological development for the past sixty or seventy years and have impacted on the lives of millions of people and as well as national and international economies.

Professional interest in organizations, organizational change and technological change, implementation and adoption were the drivers of this research project. This project has its antecedents in the researcher's MSc Information Technology dissertation that investigated the impact of an enterprise social network in a London based university with the aim of exploring whether the enterprise social network would encourage project teams to share experiences and whether new/unforeseen projects would emerge because of sharing ideas across projects. The method of analysis was Social Network Analysis (SNA) a form of analysis that examines network nodes and the structures of networks. SNA is concerned with humans and how they link within networks and excludes non-human technologies etc.

With this project in mind and as part of the research methods module the researcher was introduced to ANT. ANT and SNA are unrelated but there is an ontological leap from the focus being solely on humans and the nodes of the network to focussing on human / non-human / hybrid entities and the links between the networks i.e. how the networks came into being rather than what they had become.

The authors work organization provided an opportunity to be the research site due to the organization implementing a major restructuring exercise alongside the introduction of an electronic support desk system. Both the restructuring and the support desk system impacted on the existing Faculty administrative teams by potentially changing their structure and constitution, merging existing teams into a new single team resulting in a move from front-line to back-office.

ANT was selected as a possible research method at an early stage in the project due to its applicability to research in the field of information technology and its ability to follow key actors through the development of new structures.

The author is involved with the restructuring of the organization as a manager of one of the teams affected but also as a member of staff impacted by the result of the restructuring. The author is both outside of the restructuring / information technology implementation but at the same time inside these processes. This dual role or identity brings to the surface the question of whether the researcher can be truly independent of process of researching. ANT recognises the duality of researcher/researched and as Michael (2017) suggests we (researchers) are not:

“...just intermediaries depicting networks but also mediators transforming and re-translating it”.

The active transformation of the organization combined with analysis allows the researcher to gather timely source material whilst the activity is living. The choice of ANT as the research method allows for the investigation of the human and non-human actors during the period of active change.

1.4 Research Aims, Objectives and Research Questions

1.4.1 Purpose of the Study

The purpose of this research project is to investigate through a single case study, the implementation of a student service desk system in a central London higher education institution and how the alignment of interests of various stakeholders is managed and leads to the imposition of identity on the teams managing the system.

The case study will provide a description of the experiences of individuals affected by the implementation project and will provide an analysis of the situation using the lens of ANT. It is expected that ANT will provide a focus on how organizational managers work to align the interests of individuals and change, remove and impose identities on individuals and teams. The number of participants in the study will be between 10 and 16 individuals. The case study will make use of semi-structured questions and document collection and analysis. The scope of the study is limited to staff working in Faculty administrative teams in a London based HEI who have been identified as being affected by organizational and technological change initiatives.

1.4.2 Aim of the Study

The aim of this research project is to investigate through a single case study, the impact of organizational and technological change and whether the interests of the key actors are aligned to the change outcomes whether staff adopt new identities imposed on them.

1.4.3 Objectives of the Study

1. To investigate whether the actors affected by the proposed organizational and technological changes interests are aligned with the outcomes of the change programme.
2. To investigate how and why organizational and technological changes have impacted on and affected perceptions of team identity amongst administrative support team members.
3. To identify and understand the nature of any identity changes in the administrative support team resulting from organizational and technological changes.

1.4.4 Research Question

This study asks the following questions:

- Are the interests of actors de-coupled from existing networks of association and aligned with a new actor-network?
- Do actors identified form a new actor-network and adopt the new identities imposed on them as part of the formation of the network?

1.5 Research Methodology and Design

1.5.1 Introduction to Research Methodology

This section outlines the research methodology used in this study and how the study was carried out. The chapter includes a description of the data collection process, the methods used to analyse the data, an outline of the case study, the research setting, data sampling and ontological considerations. The intention of the study is to investigate the combined forces of organizational and technological change on team identity. The changes occurring in the organization selected provided an excellent and unique opportunity for this study to proceed and allowed for the use of in-depth interviews and access to a range of staff at different levels of the organization who were impacted by the changes in different ways. The range of interviews covered operational team

members, team managers, IT managers and senior staff. The range of interviews allowed for a variety of different perspectives.

1.5.2 Research Paradigms

Researchers operate within a framework or set of broadly accepted ideas or ways of thinking known as **paradigms**. Paradigms or accepted ways of viewing a field of research are related to a research approach known as the **Deductive** research approach. The Deductive research approach is based on testing existing theories through the development of hypotheses that test the validity of a theory. Testing hypotheses provides using experiments or observations that provide the researcher with additional data that either supports or does not support a theory (Hayes, 2007) see Figure 1.

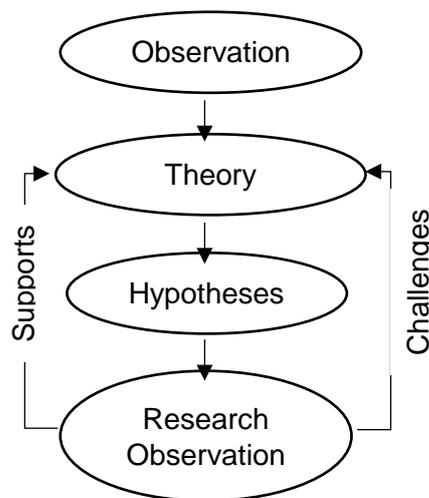


Figure 1 The hypothetical-deductive research cycle, adapted from Hayes, (2007)

The Inductive research approach does not start from the position of testing existing theory and the building of hypotheses. Inductive research starts with the collection of data and observations which is then analysed and interpreted. From the interpretation theory is formed. Theories derived from the data collection and analysis can then be subsequently tested through deductive hypothesis testing, see Figure 2.

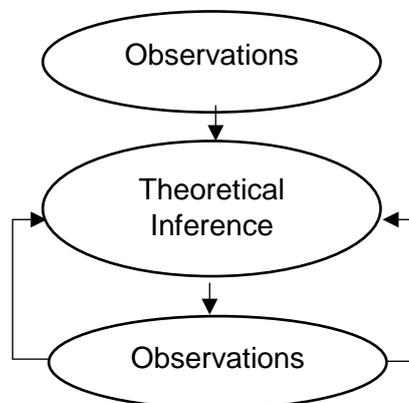


Figure 2 The Inductive Research Approach adapted from Hayes, (2007)

1.5.3 The Conceptual Model Underpinning the Alignment of Interests and Imposition of Identity

The model in Figure 3 illustrates the conceptual ANT-based model used to bring about the alignment of interest and imposition of identity, in this research. The figure begins with the exiting network of association and moves through to the Translation process which leads to inscription of thoughts, ideas, processes and procedures, see section 3.3.11, Inscription Devices, Communication and Organizational Change, page 95. Through Translation and Inscription interests begin to be aligned with the new structure and new identities begin to be adopted. This process leads to the stabilization of the new network of associations, see 3.3.6, , page 83.

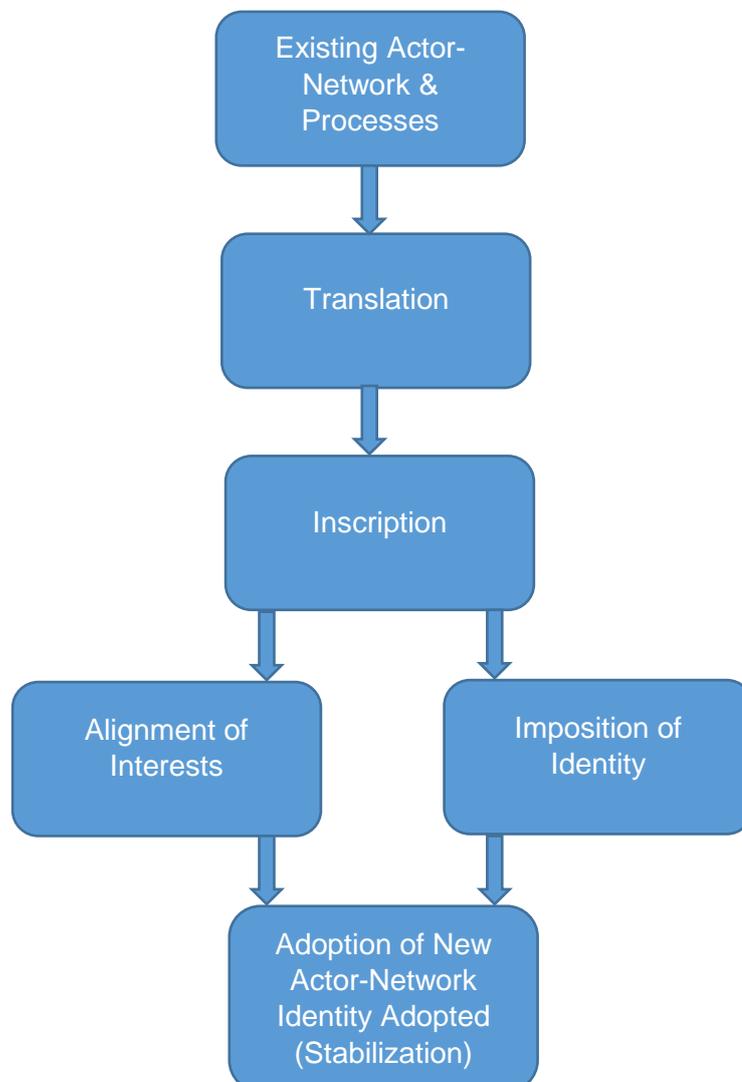


Figure 3 Conceptual Framework

1.5 Methods

This section outlines the methods used in this research study and provides supporting arguments for their use.

The aim of this study is to gather data from relevant participants on their feelings and thoughts relating to organizational change and the concurrent introduction of a new information system in a higher education institution. To undertake the study, the single case study was decided on as a relevant method for gathering data from a range of university administrative staff who were directly involved in the organizational change, had been involved in previous organisational changes in the same institution and were either intending to use the new Information system or were new users of the system.

The case study approach outlined by Thomas, (2011) is used in this research project because of the approach to building the type of case study, Table 1, page 41. As Thomas states case study is not in itself a method but an approach. Thomas recommends the case study because it can be applied across disciplines but is mainly applied in the Humanities and Social Sciences. Thomas argues that the case study is applicable to and especially useful in areas where there is a high degree of complexity. The case study approach is applicable to this study due to it being particularly suited to uncovering and collecting data about an area or phenomena. The case study can be concerned with a person, a group of people a situation, a place, an organization all in a specific period of time. One of the main characteristics of the case study method is that normally it is not possible to generalise from the findings.

One of the key reasons for the use of a case study is that the researcher has a strong connection with the institution in question, the teams making up the study and the impacts of the organizational and technological changes and the outcomes of these in terms of emerging team identities.

The case study is concerned with the 'how' and 'why' of a situation and is particularly well suited to an inquiry where the research questions are of this type as is the case with this study. Case studies make use of methods for the process of data collection. The case study is defined by Simons, (2009) as;

“Case study is an in-depth exploration from multiple perspectives of the complexity and uniqueness of a particular project, policy, institution, programme or system in a ‘real life’ context. It is research-

based, inclusive of different methods and is evidence-led. The primary purpose is to generate in-depth understanding of a specific topic (as in a thesis), programme, policy, institution or system to generate knowledge and/or inform policy development, professional practice and civil or community action.”

Thomas (2011) uses the definition:

“Case studies are analyses of persons, events, decisions, periods, projects, policies, institutions or other systems which are studied holistically by one or more methods. The case that is the subject of the inquiry will be an instance of a class of phenomena that provides an analytical frame – an object within which the study is conducted and which the case illuminates and explicates.”

Thomas highlights the importance of the use of the case study in exploring the idea of boundary. In this research project, the case study concerns: Faculty administrative teams in a small higher education institution, the case subject, and a combined organizational and technological change within the organization and examining how and why they impact the identity of these teams (the analytical frame).

The main data collection method used is the unstructured interview, specifically the CI technique. CI (Dick, 1998) is particularly applicable to this research project because it lends itself to the collection of large amounts of data in areas where there has not been much if any research carried out in the past and therefore, there is a need to gather through the questioning process ideas for further questions. The strength of the CI technique is that it follows a systematic and well-defined process and uses a mixture of unstructured and semi-structured questions as a method of developing further questions. CI is particularly well suited to situations where there is little existing research and has been used effectively as a method for collecting and analysing data during periods of organizational change (Riege and Nair, 2004).

Alongside CI, documents relevant to the decision-making process, funding, design and implementation of the Student Information Desk (SID) system have been collected and analysed. Participant observation of a software development decision-making meeting was also carried out.

1.6 Research Design and Approach

1.6.1 Introduction

This section provides details about what research design is and the research design implemented for this study. Research design is the plan for how the research project will be developed to answer the research question. The research question and the research design are intimately linked and the choice of research design needs to be justified in terms of one's research philosophy, various constraints including time, funds and access to research subjects, place where the research is carried out, the teams selected to be included in the analysis and the methods used (Saunders *et al.*, 2007).

The research design must reflect the worldview and assumptions of the researcher. The research design will be significantly influenced by the nature of the research being carried out and the audience for the output of the research. The main research designs are centred on qualitative, quantitative and mixed methods.

According to Cresswell, (2007) qualitative research design does not necessarily have a clear or widely agreed structure but instead can for some researchers be based on a number of considerations including gaining a sense of how the research should progress based on a broad reading of the subject area and then developing a plan.

Cresswell (2009) provides a structure for developing a research strategy that includes:
Selection of the type of research approach – quantitative, qualitative or mixed methods

- Consideration of the researcher's worldview – Positivist or Social constructionist
- Selection of research strategy – survey, experimental, ethnographic, grounded theory, case study, phenomenological or narrative, (Cresswell, 2009)

1.6.2 Research Design

The research design is outlined in figure 4 and described in detail in the following sections.

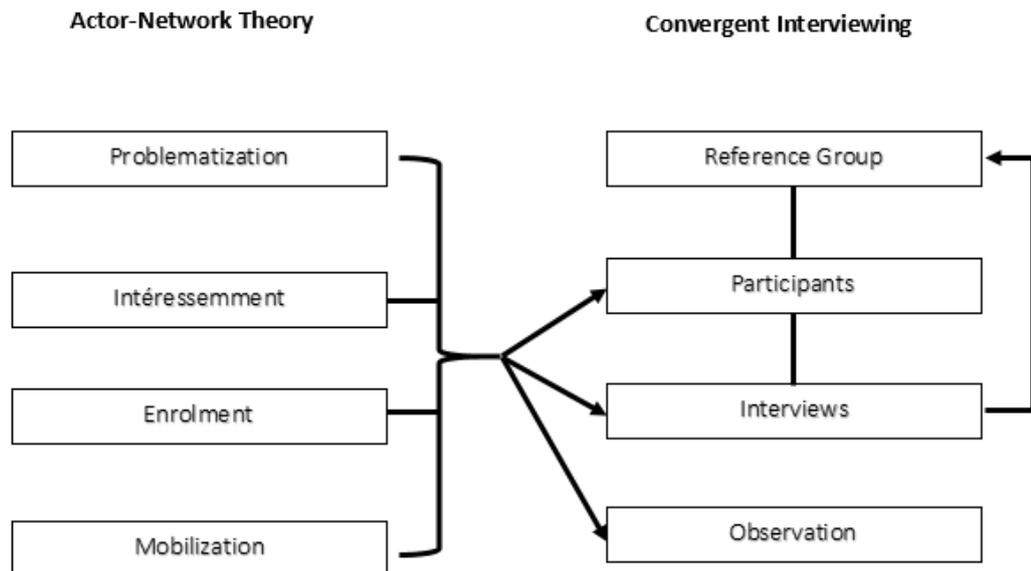


Figure 4 Research design, developed for this project

Figure 4 gives an overview of how ANT informs the selection of participants, the design of the interview questions and guided participant observation sessions. The selection of participants was through the reference group, but these participants were primarily human. ANT provided a guide to non-human participants including the SID system, documents and other artefacts. ANT provided a framework for the design and direction of the study and provided points of reference that led to the development of codes and themes.

1.6.3 Research Strategy of the Study

The strategy adopted by this research project is centred on a qualitative research strategy which is aligned to an Interpretivist epistemology, a Social Constructivist/ANT worldview. These decisions have been made due to the nature of the research question that seeks answers to how and why questions and the researchers' personal worldview that the field in question relating to teams, identity and technology are constructed by those involved and that humans and non-humans are in networks of association are included in a 'flat' ontology that removes the distinctions between local and global, micro and macro.

The rationale for choosing the qualitative strategy is as follows: selecting the qualitative strategy is strongly related to the process of the research stemming from the Interpretivist prism and are especially relevant because of the focus on undertaking research in the natural setting (Cresswell, 2007). Cresswell defines qualitative research as an approach that;

“...addresses the meaning individuals or groups ascribe to a social or human problem. To study this problem qualitative researcher’s use, the collection of data in the natural setting sensitive to people in places under study, and data analysis that is both inductive and deductive and establishes patterns or themes.”

The research project aims to gather the views, opinions and feelings of the key actors working in teams in a specific organization including human and non-human actors. One of the aims of the research is to establish patterns and themes. According to Cresswell (2007) it is appropriate to use qualitative research when a problem or issue needs to be “explored”. The rationale for exploring a situation is to study areas where variables cannot be easily identified and to examine the situation from a number of perspectives.

1.7 Research Approaches

This chapter expands on the two research approaches deduction and induction as outlined in section 1.5.2, page 27. The research approaches are related to research philosophy and the research strategy and design. The research approach can either be deductive, based on the scientific approach, theory testing or inductive which relates to theory building.

1.7.1 Deduction – Theory Testing

The deductive research approach is what is based on what is commonly known as the scientific method as often used in the natural sciences and is concerned with factual data. Deduction is built on deducing a hypothesis, specifying measures and relationships between concepts and variables, testing the hypothesis, looking at the result of tests and confirming or modifying theory (Saunders *et al.*, 2007). A central characteristic of deductive research is that it consists of the collection and analysis of quantitative data. The researcher is separate or independent of the phenomena that is being investigated or observed. Another characteristic of deductive research is that the findings are generalizable. Deductive research projects often make use of large data sets collected through structured experiments including large scale surveys and the

analysis of statistical data. Quantitative data tends to be well defined and can be used in comparisons for example, age, height, dates etc.

1.7.2 Induction – Theory Building

The inductive research approach has its origins in 20th century Social Sciences. Inductive research is concerned not with quantitative data but with qualitative data. The qualitative (inductive) researcher is interested in the context that phenomena are occurring in and in the interpretation of why and how things occur, in individual perceptions and understandings in the world rather than just in cause and effect. Data collected during a qualitative research project tends to be based on the semi-structured or unstructured interview, focus-group, film, image, sound recording etc. The aim is to develop an understanding of a situation and the focus is often on human behaviour and perceptions of experiences. Inductive research is often concerned with small samples (Saunders *et al.*, 2007).

1.7.3 Philosophical Concerns

This section outlines the main philosophical concerns of research including the concepts and key philosophical concerns. The research concepts and philosophy provide the building blocks of the research strategy. The underpinning conceptual and philosophical position is important because it provides a structure for the research based on the researchers own worldview. The main philosophical concepts are outlined, and the position taken throughout this research is stated.

Philosophical underpinnings are important for the researcher to consider because they reflect the thinking behind the research and dictate the direction of the research project and inform the methods and the methodology used. According to Crotty, (1998) the four elements to research practice that relate to each other are; epistemology, theoretical perspectives, methodology and methods. The importance of the philosophical underpinnings is that it allows the researcher to construct appropriate (scientific) ways of working and to ensure that the research is carried out in a way that is convincing and can stand up to scrutiny.

The epistemological, theoretical, methods and methodological elements connect the logic of the research approach. The philosophical approach or strategy is underpinned by a set of concepts. **Concepts** are abstract ideas or ideas that can sum up in a shorthand way the complexity of a broader subject for example, the word identity is a

concept that is an abstraction of many tangible thoughts, including the idea of personal, group and organizational identity and how identity influences the nature of individuals, teams and organizations. Concepts are the building blocks of theories (Quinlan, 2011). The concept of identity was developed over time by theorists from several disciplines and this has resulted in a variety of theories being developed all based around the concept of identity. Other key concepts used in this research project are teams, organizations and technology. These concepts are underpinned by a range of theories depending on the field in which they are situated.

Following on from concepts is **Epistemology**. The researcher will need to consider the nature of knowledge in the field under examination or the Epistemological position of the research. Epistemology is concerned with what constitutes acceptable knowledge in any particular field (Saunders *et al.*, 2007).

The key epistemological positions are Positivism, Realism and Interpretivism. **Positivism**: this position assumes a natural science view of the world and takes the point of view that social sciences phenomena are observable and testable with the ontological position being that of a situation existing outside of the experience of the researcher. The research results in generalizable conclusions in much the same way as research carried out by physical and natural science-based researchers. Positivism tends to rely on existing theories and the development of hypotheses. Hypotheses are tested and confirmed, and the outputs are then used to further develop theory. Research undertaken using the positivist perspective often uses a very structured methodology so that the research can be replicated. Positivism is usually characterised as making use of hard data (numbers), large scale surveys, laboratory experiments and mathematical modelling (Myers, 1997). The positivist perspective is associated with the methods of the natural sciences, the scientific method and in social sciences and organizational studies is associated with the use of quantitative instruments such as experiments and can include large scale questionnaires and surveys and statistical analysis.

Realism: this position takes the view that external objects have an independent existence outside of the mind of the researcher. Realism takes a scientific approach to knowledge gathering and development and this approach reinforces the collection of data and how those data are interpreted.

Realism is divided into two distinct types: Direct Realism and Critical Realism. Direct Realism takes the view that the world is relatively unchanging, and the research interest

tends to be limited to a specific level for example, the individual, the group **or** the organization. Critical Realism on the other hand tends to take a multiple level perspective and the researcher will focus on the importance of the interrelatedness of phenomena at individual, group **and** organizational levels. The position of the Critical Realist is that the social world is subject to constant change (Saunders *et al.*, 2007).

The other major epistemological perspective is Interpretivism. **Interpretivism** is considered a reaction against the Positivist view that objective truth exists externally from the researcher and that phenomena can be reduced to a set of definite 'laws' that can be generalised to other similar situations. The Interpretivist researcher takes the perspective that humans in social organizational circumstances interpret their everyday roles in ways that give meaning to the roles (Saunders *et al.*, 2007). The main challenge for the Interpretivist researcher is to be able to enter the world of the research subjects to try to understand what is happening from the subject's perspective. Saunders (2007) suggests that the Interpretivist approach is well suited to research in the organizational and business environment. Due to the changing nature of social situations and the uniqueness of organizations the output of Interpretivism is not considered to be generalizable. The Interpretivist perspective is usually associated with the use of qualitative methods such as case studies and the use of semi-structured interviews, observation, document analysis and video and audio records.

Following on from Epistemology (what constitutes acceptable knowledge in a field of study) is the question what constitutes the nature of reality or Ontology. **Ontology** is concerned with questions such as, what is the nature of reality, do physical properties exist, what is existence, what constitutes a level, what constitutes the identity of an object, when does an object cease to exist rather than just changing into something else? Crotty, (1998) argues that ontology should not be part of the overall structure of the research design because ontological concerns or concerns about the nature of reality a positioned near to epistemological concerns and inform the theoretical underpinning of the study. Crotty suggests that ontological concerns arise together.

1.7.4 Philosophical Position of this Study

To undertake this study in an organizational setting and to elicit information regarding participant views on organizational change and the introduction of a technological system, an ANT approach was adopted to guide the research data collection process. As a member of one of the teams included and a member of a working group steering

the implementation of the technology in question the researcher is an active participant in the process of change and the technological implementation and therefore is not always separate from or an objective observer of the action in question.

The philosophical position of this research follows from ANT. ANT's philosophical position is linked to SSK and takes as its starting point an objective scientific perspective in terms of its approach to the natural world (Latour, 2007, p.23). This position is, in practice, at a point between positivism and constructivism and makes use of concepts from both traditions (Latour, 2007). For example, Latour (2007) states that the term construction is especially useful when the researcher is focused on "*the scene in which humans and non-humans were fused together.*" On the other hand, ANT holds to an objective relativist perspective (Latour, 2007, p.244) and is especially concerned with empirical studies that result in long descriptions through a process of moving back (closer) to the object (Latour, 2007).

ANT has developed its own unique philosophical position which is outlined here:

1. Sociological systems are relational in character and each system entity derives its nature from those relationships;
2. Sociotechnical networks are heterogeneous in nature: they are composed of human and non-human, social and material actors (people, organizations, texts, technologies, etc.);
3. Heterogeneous networks, or actor-networks, are assembled over time and made durable, or not, through a process known as Translation. (Ballantyne, 2010).

These three points constitute the philosophical position adopted for this study.

A key assumption stemming from the three points above is that that all entities (social, technical, natural) are relational and the nature of these entities is derived from the relations. A second assumption is that all relations between entities are heterogeneous networks (actor-networks) and a significant point standing out from the Positivist / Interpretivist position is that all entities (human or non-human) bound within the relations of an actor-network have agency (Ballantyne, 2010).

This philosophical position can be exemplified through the description of a single human-being as a 'society' expressed through the relations that connect people to their ancestors, genes, bodies, names, colleagues, ideologies and environment (Cooren, 2018). The effects of relational networks is to materialize things into other things for example, an idea, discussion, document, technology, policy or practice (Cooren, 2018).

For this research project in an organization setting where there are multiple actors engaged in various aspects of change and technology implementation ANT's flat ontology is adopted. The assumption taken is that all the actors/Actants exist in the domain of interest but what matters is the meaning attributed to any element of the network of association by individuals in the teams through their relations. The meanings attributed are formations that are constructed through the interaction between individuals and entities within the network (Heeks and Bailur, 2007). The assumption is that the objective observations, constructions and interests of the researcher become part of the study.

1.7.5 Research Methods Selected for this study

For this research project, an inductive research approach was adopted. It was considered that the case study approach would be relevant and semi-structured interviews, document collection, participant observation and email collection were included within the case study as data collection methods. The reason for this approach was the need to collect data in an environment where there was little existing research, the research objectives and questions were based on understanding the feelings, thoughts and experiences of individuals in a specific location, time and space.

1.7.6 Research Ethics

This research project was planned to be undertaken in a central London university with subjects selected from teams of professional support staff providing support to students and academic staff. Farrimond (2013), argues that carrying out a research project within the organisation that the researcher works in carries with it significant ethical consideration. Although researching one's own organisation might seem like an obvious choice staff can sometimes feel pressured into participating especially as trust relationships might already exist. The other issue is that it can be difficult to anonymise the place where the researcher is working.

The research collection method was a series of semi-structured interviews that were designed to illicit responses from individuals regarding their personal perceptions on organizational change and the introduction of a technological system. Since it would be

possible to identify the organization and individuals, it was agreed to anonymise the data to prevent identification of the research site and participants.

Chapter 2 Case Study Introduction

This chapter introduces the case study and the rationale for the use of a single case study. Following on from this is a section covering the relationship between the case study and ANT. The process of sampling is explained and there is an explanation of the process of CI. The research site is introduced along with an overview of the data collection methods used including interviewing, participant observation and documents collection, review and analysis and the use of technological artefacts. Data analysis is briefly introduced and there is an analysis of the limitations of the use of the qualitative analysis software NVivo, section 2.3.6, page 56.

2.1.1 Justification for the methods adopted

The use of CI as a method for collecting the views of participants was based on the techniques focus on bias reduction, see section 2.2. Semi-structured interviews were selected because they allowed for an initial set of data to be collected which was then reviewed shortly after interviews and for convergent themes to be identified. From the converging themes the next set of questions emerged, section 2.3.1. According to Riege & Nair (2004, p.74);

“Convergent Interviewing is an in-depth interviewing technique for collecting, analysing and interpreting qualitative information about people’s experiences, knowledge, opinions, and beliefs that converge on important research issues through the use of a number of interviews.”

It was decided to take a qualitative approach to the collection of data, therefore quantitative data collection techniques were ruled out. Another potential method that could have been adopted is Action Research.

Action Research is often used as a method of improving existing practice for example teaching and is often practitioner led. The aim of Action Research is to investigate an area that would benefit from a change and the outcome of the process is often a change to existing practice. The process of Action Research tends to be cyclical and follows a problem-solving process (Smith, 2007).

For this project Action Research was ruled out for the following reasons, the scope of the organization and technological change project was too big, and the researcher was not able to instigate and drive changes as per the process of Action Research. Action Research is seen as an empowering process for participants if they are directly involved in the implementation of a change. For this research project it was not appropriate for participants to directly address the change as change agents as the aim was to find out how changes affected the participants. The researcher was not the project lead and it would have been beyond the scope of the project for direct action to be taken by the researcher and participants. This would have changed the nature of the project and potentially would have affected the outcomes.

2.2 The Single Case Study

According to Yin, (2009) there are five rationales for the use of the single case study – where the case represents a:

- **critical** case and is used to test a well-founded theory;
- **unique** or extreme case which is commonly found in clinical settings;
- **representative** or typical case where everyday situations are analysed;
- **revelatory** case where phenomena are not normally accessible to enquiry;
- **longitudinal** case where phenomena or conditions are studied at different points in time so that changes are revealed over time.

Thomas, (2011) takes a different approach to case study design and removes Yin's category representative or the typical case. Thomas categorises cases according to the criteria in Table 2.

Subject	Purpose	Approach	Process	
Special or outlier case	Intrinsic	Testing a theory	Single or Nested	Nested
Key case	Instrumental	Building a theory		Parallel
Local knowledge case	Evaluative	Illustrative		Sequential
	Explanatory	Descriptive		Retrospective
	Exploratory	Interpretative		Snapshot
		Experimental		Diachronic

Table 1 Kinds of case studies, after Thomas (2011)

This case study adopts the following approach: A **local knowledge case**, **exploratory** in nature, **drawing a picture – illustrative** and **building a theory** using a **single case** that is **retrospective** – relating to past phenomena – looking at documents and archives and making use of interviews recorded at a specific time – and **diachronic** – where change has been recorded over time and differences are revealed.

The case in question is not normally available to investigators external to the organization, the case was only available because the researcher works in the organization and has direct access to internal organizational actors, staff, teams, equipment, computer systems etc. and has intimate knowledge of the field and is involved with the organizational change and the implementation of the ICT system. Access to the site allowed for a detailed investigation to be undertaken and for unique insights to be gathered which would otherwise have remained inaccessible and concealed. This is a justification for the use of a single revelatory case study.

The single exploratory case study is relevant as a mode of enquiry when used in conjunction with ANT as a lens of analysis. ANT investigations are often single exploratory and diachronic cases that illustrate or describe the progress of change over time, (Latour and Woolgar, (1986), Latour, (1991), Law, (2002), Jerolmack, (2013), Kidder, (1999)).

The case study approach relates to the research question because it is a how and why question and it is appropriate to use a case study in this instance (Yin, 2009).

2.2.1 Case Study and Actor-Network Theory

The single case study approach has been selected as an appropriate form of investigation (Thomas, 2011) in order to uncover the 'how' and 'why' of a situation. As (Thomas, 2011) states, "case study is not a methodological choice but a choice of what is to be studied". ANT also starts by asking 'how' questions (Luscombe and Walby, 2017). ANT is useful for uncovering the 'footprints' left by activities such as the organizational change and the introduction of technology and provides an approach and vocabulary that allows for the examination of how networks of association emerge and the influence of these on people and other actors (Carroll *et al.*, 2012).

This study uses ANT as an analytical lens through which to analyse three dynamic and interlocking scenarios the introduction of a student facing support desk system, the Student Information Desk (SID); three stable teams subject to a proposal for an organizational restructuring imposed on the teams by the senior management team a proposal for a new structure imposed by the senior management team. ANT allows for all relevant actors within a network to be identified, their roles investigated and described.

The aim of a case study is to look at a case from different perspectives and angles and allows for the use of multiple data collection methods. Thomas, (2011) defines a case study as

"...analyses of persons, events, decisions, period's projects, policies, institutions or other systems which are studied holistically by one or more methods..."

The case study should contain an analytical frame (or object) that illuminates the case. The proposed case study can be classified as a Local Knowledge Case (Ibid).

2.2.2 Sampling

For this research project, it was decided that the semi-structured interview and structured interview would be suitable methods to use to gather data on what participants thought about the issues under investigation, as it is useful for eliciting a large amount of data. It is clearly not possible to interview every member of relevant staff due to accessibility and there would be an overwhelming volume of data. To minimise the amount of data and to enable the maximum level of access to participants a representative sample was made use of.

The researcher has access to several sampling techniques which are suited to either quantitative or qualitative research designs. Sampling techniques are grouped into Probability and Non-probability samples, see Table 2.

Sampling Type						
Probability/Random		Non-probability/Selective				
Simple Random	Stratified random	Quota	Purposive	Snowball	Self-selection	Convenience
Systematic	Cluster	Extreme case	Heterogeneous	Homogeneous	Critical Case	Typical Case
	Multistage					

Table 2 Sampling techniques adapted from Saunders (2009)

Probability sampling relies on the principle that the sample will be chosen at random whereas non-probability sampling is non-random. Qualitative research tends toward non-probability sampling due to the context, the number of participants, access to participants and where cases need exploratory research to narrow down questions and to determine the nature of an issue, Saunders et al, (2009). The sampling method used in this research was determined through the research question, research design and methods and following the selection of non-probability sampling techniques as outlined by Saunders et al (2009).

- The data could not be sampled from the entire population;
- The sample must be representative;
- Quota variable were not available;
- The purpose of the case is not just exploratory;
- Individual cases can be difficult to identify;
- Use snowball and purposive sampling.

The CI process also recommends using purposive and snowball sampling but to reduce bias the method relies on the use of a reference group who can be used to discuss whether participants suggested are suitable or not. In this way bias introduced by previous participants through them possibly knowing a limited number of referrals is reduced.

2.2.3 The Convergent Interview Questions

Questions for the CI's were derived from the research questions and the research objectives. The aim of CI questions is to generate rich content that relates broadly to the research question and has some probability for generating unusual responses that could lead to areas of interest that can lead to the generation of subsequent questions.

The interview questions were reviewed after every two interviewees and then depending on the responses either the same questions were used again, or a new question was developed from the parts of the interviews that converged. Throughout the interview period the questions were adapted six times. The aim of the revised questions was to elicit from subsequent interviewees responses based on convergence and/or to get the next set of interviewees to focus more tightly on emergent issues. The questions were as follows:

- Tell me about your team and how it has changed over the time you have been here.
- Can you tell me about the process of how SID was implemented once the procurement process ended?
- Tell me about your vision for the HUB and how the SID system integrates into this.
- Tell me about your job and if possible the ways that the SID system integrates into it.
- The last set of questions was a set of structured questions focusing on the use of the SID system.

See Appendix F Question Set One for the full set of questions.

During this study, the CI questions were typed on A4 landscape formatted paper with the main question in bold and underneath a series of sub-questions designed as prompts for the interviewee if they wanted to use them. The paper with the questions was provided to the interviewee at the start of the interview and the interviewee was allowed time to consider the main question and then prompted for an answer. In most cases interviewees did not need much additional prompting either verbally by the interviewee or using the sub-questions.

2.2.4 Research site

The concept of the student service desk is new to the higher education sector and in many cases the development of this service has been aligned to the changing perspective of what a student is. For example, over the past twenty years other terms for student have been introduced and adopted to reflect the changing relationship between institutions and students as the need to pay increasingly higher tuition fees impacts on the overall student experience and student satisfaction. Given the relevance of the development of student service desks and associated organizational changes across the higher education sector this project is an excellent opportunity to investigate the impact of organizational change and changing student expectations on team identity.

Faculty and Registry Staff Organizational Charts – Pre-restructuring – Faculty and Registry Teams

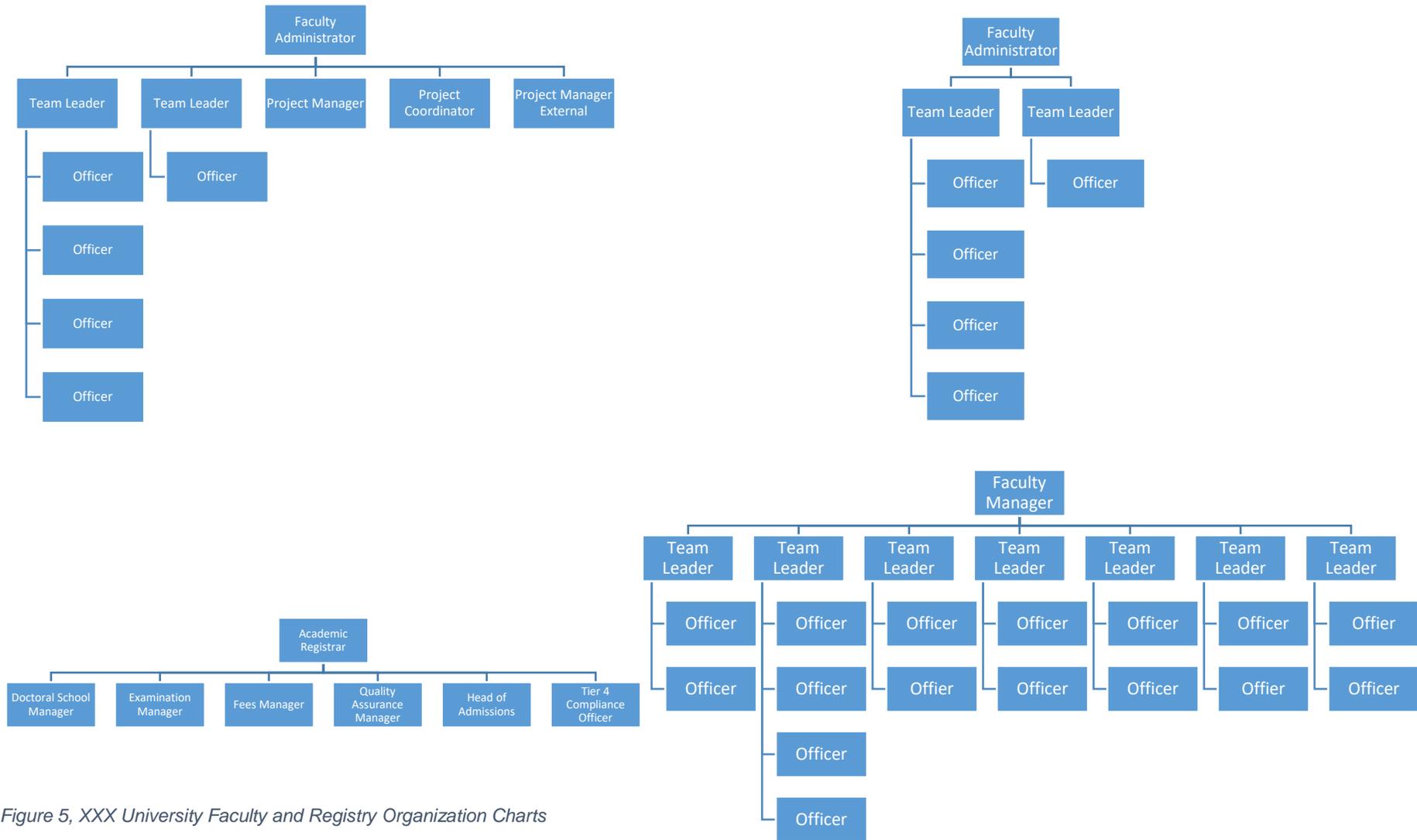


Figure 5, XXX University Faculty and Registry Organization Charts

The study discussed in this thesis focuses on four administrative teams, these being, three faculty administrative teams and the Registry team based in a central London university.

The service desk system introduced was a cloud-based product developed by a company called Colum Technologies. Column was selected after an industry wide tendering process. This initiative was strongly supported by IT support staff who had been using a similar system for some time. The tender was won by Column Technologies, after which the university IT team developed a specification for the system and determined that implementation would take up to eighteen months. However, the university Executive Board decided that the project timescale should be reduced to three months for implementation to coincide with the development of a physical student service desk known as the Hub. Reducing the timescale had a significant impact on the scope of the implementation but the system did go live at the end of three months. The system was branded the Student Information Desk or SID.

The system was introduced to students as a pilot in the second term to coincide with the exams period. This period was chosen because it would allow staff on the receiving end of the system to work primarily with exams related questions only thereby limiting the range of requests to manageable proportions.

Prior to the introduction of the SID system students were expected to go in person to one of three faculty-based offices. Staff in the faculty offices had built up a large repository of institutional knowledge and relevant technical and computer skills. This knowledge and the technical skills had been built up over many years and for many staff the identity of their team and their individual identity was built around the provision of personalised student focussed services.

The introduction of the SID system was designed to align with the opening of a new centralised student administrative centre known as the Hub. This development resulted in all student enquiries in person being redirected from faculty offices to the Hub and the SID system becoming the main method of communication between students and faculty office staff. Previously staff working in the Hub were based on another site and operated as back office staff whereas faculty office administration staff were front facing but with the introduction of SID and the Hub these roles were reversed thereby changing the identity of all of the teams involved.

Although the SID system was supposed to be used daily and many faculty administrative staff could see the benefit of the system after a few months many staff stopped logging

into the system. Some staff proposed that the system should be abandoned and the teams return to using email as the main method of communicating with students.

Although it looked as though the system was in doubt and staff were beginning to question the need for the system a new Director of Student Services was appointed who then carried out a restructuring of the Hub. This included reaffirming the need for the SID system and a clear steer that the system was not going to be abandoned. Demand for the system by students had increased extensively during this time and there was no indication that students as the primary users of the SID system were not in favour of using it.

A decision was taken to reiterate the need for the system and to implement further staff training to reinforce the use of the system among faculty based administrative staff. The system has now been extended to allow for submission of student disability notifications to a secure area of the system and SID is now fully integrated into the day-to-day operations of the student facing Hub.

Faculty office administrative staff are now considered to be an integral part of the SID system, but it is still not fully embedded and accepted. The university is currently carrying out a major restructuring of faculties and faculty administration and because of the introduction of the SID system and the student Hub it is likely that the three faculty-based teams will become one single team possibly aligned to the Registry. This will in effect result in the need to shed existing team identities and to adopt new team identities that for a proportion of staff will be seen to be identities imposed from outside of the teams.

2.3 Data Collection Methods

Having identified the case study as the appropriate research strategy the following methods were adopted for gathering data; participant interviews, document collection and review, participant observation including observation of technological artefacts such as computers and software.

The core dictum of ANT is to “follow the actor” (Latour, 2007). ANT provides a framework for investigating and analysing phenomena especially those that involve humans and non-humans acting together in network situations. The strengths of ANT include focusing on performativity, studying actual practice in situ, identifying missing or invisible elements, revealing network stability/instability and the agency of non-humans (Cvetinovic, et al, 2017).

The primary data collection methods adopted in this study the case study are as follows:

Data collection method	Organization change	Technology introduction
Semi-structured interviews	Yes	Yes
Document collection and review	Yes	Yes
Observation	No	Yes
Technological artefacts	No	Yes

Table 3 Data collection methods

2.3.1 Semi-Structured Interviews

Interviews were carried out using semi-structured interviews using the CI technique. The rationale for this was based on the need to collect experiential perspectives from participants covering technological change and because CI is highly structured, can reduce bias (Dick, 1995) and allows for selection of follow-up participants.

The technique also allowed for questions to be reviewed and amended for subsequent interviews based on previous answers. This enabled the questions to be refined and focused throughout the process. The last interview was a structured interview using specific questions relating to the implementation and use of the SID system.

The following table outlines the categories of participants who were included in the study:

Participants	ID	Organizational change	Technological change
Manager	A01	Yes	Yes
Manager	A02	Yes	Yes
Manager	A03	Yes	Yes
Administrator	A04	Yes	Yes
Administration Assistant	A05	Yes	Yes
Administrator	A06	Yes	Yes
Assistant Director	A07	No	Yes
Senior Manager	A08	No	Yes
Director	A09	Yes	No
Director	A10	Yes	Yes
Administrator	A11	Yes	Yes
Manager	A12	No	Yes

Table 4 Interview participants

Interviews were carried out between March and July 2016. All participants completed a participant consent form, were provided with information and were informed that they can withdraw at any time. All interviews were recorded and transcribed by the researcher. This enabled for an in-depth understanding to be developed. All transcripts were input to the qualitative analysis software NVivo for later analysis. All participant identifying information was anonymised, for the analysis a coding system was used.

The CI process is outlined below:

1. Asking a series of semi-structured interviews using an initial purposive selection of staff guided by a reference group. The selection will be from the administrative professional support team, senior managers and project team members. Participant selection after the initial selection of candidates will use a snowball sampling approach. The interview method will follow the CI technique as described by Dick (1998).

2. CI has been identified as a good method for reducing the complexity of a situation particularly one where there is little previous data or information and reducing the scope to the important issues through refinement of questions and analytical interpretation of interview outcomes (Riege and Nair, 2004).
3. According to Riege & Nair (2004, p.74), "*Convergent Interviewing is an in-depth interviewing technique for collecting, analysing and interpreting qualitative information about people's experiences, knowledge, opinions, and beliefs that converge on important research issues through the use of a number of interviews*". The technique has been used extensively to uncover issues relating to organizational change and interventions (ibid). CI combines both unstructured and semi-structured interviewing techniques as a way of reducing bias. The technique is tightly structured and uses unstructured leading to semi-structured questions with subsequent questions being brought forward from earlier interviews.
4. The process of narrowing down of questions derived from previous interviews is considered to provide greater data validity and reliability than traditional forms of interviewing because the unstructured questions do not determine the outcome of the interviews. CI is a relevant technique to use because it is defined as a method for theory building (Rao and Perry, 2003) and this concurs with the use of case study.

ANT (descriptive method) was used to guide the process of following the development of the organization and as the method of analysing the outcome of the data collection process.

A single case study is appropriate for the situation being studied. A concurrent mixed-methods approach has been selected to enable triangulation of:

- 1) Internal and public facing documents: 2013-2015 & content analysis.
- 2) A qualitative exploratory approach answering the questions 'how and 'why' ((Yin, 2009, Blaikie, 2004) using face to face unstructured interviews. Sampling will follow the CI technique; an initial group of candidate interviewees to be recommended by the reference group. Further interviewees to be selected through snowballing - recommendation of previous interviewees until data saturation is reached.

According to Dick divergent views should be ignored but recent literature suggests that divergent views can be a useful source of outlier issues that can be investigated if of use. In the literature, the main method of recording interviews is short form notes during the interview. Riege and Nair (2004) recommend recording and transcribing recordings

to reduce interruptions and distractions during interviews. This research will make use of a digital recorder and recordings will be imported into NVivo (qualitative data analysis tool) and thematically coded.

CI relies of an initial unstructured question and then increasingly develops more focused questions based on common converging themes from the initial set of interviews ((Williams and Lewis, 2005b and Dick, 1998)). According to Dick (1998), CI is often used where the outcome of the interview is not well defined i.e. the outputs can be used to define questions for questionnaire and other methods.

This method ensures that interviewer bias is reduced as the issues for subsequent questions are derived from the interviewees rather than being imposed by the interviewer. CI has in the past been used as a method of collecting data from large target populations. Often the interviews are carried out by teams of interviewers working in pairs. For this study, I will be carrying out all the interviews and selected as a sample from a total population of 64 staff.

CI is tightly structured around a thirteen-point process which for this project will be as follows:

1. Reference Group: the reference group is composed of administrative staff. The role of the reference group is to provide information and guidance on matters concerning the community in question. The reference group for the purposes of this study is made up of Faculty Administrators (team managers).
2. Define the nature of the information to be collected: CI relies on open-ended interviewing. The aim to ask an initial open wide-ranging question. For this study the initial question will be: "Tell me how the proposed changes to the team including the introduction of SID might affect your teams' identity"?
3. Target population: the target population can be all the stakeholders or just those local to the case. According to Dick (1998) if carrying out a CI in an organization or part of the organization the stakeholders can be defined as everyone within it. External stakeholders can also be brought in if useful. For the purposes of this study, Faculty Office and Registry staff have been selected as the target population because the objective of the study is to find out the views of people within these teams how they feel organizational and technological changes have impacted on their view and understanding of their team identity. It is not relevant to include students or academic staff from the outset. The study is not concerned with 'outsider' opinion, or with views on team performance. The main issue is how team members view themselves and the team through a period of change.

4. Inform the stakeholders: once the target population has been defined, Dick suggests sending out a notice about the study and letting people know that they might be included in a sample. According to Dick (1998) one reason for providing information to the target population is to avoid the attribution of “sinister motives” to the study.
5. Select the sample: for the purposes of this study it is intended to use maximum variation sampling. Maximum variation sampling is a form of Purposive sampling and is often used for case studies (Saunders, Lewis & Thornhill, 2007). The aim of this type of sampling is to purposefully select a range of cases that represent a diversity across the population. Maximum Variation sampling is a logical technique to use in conjunction with CI because the interviewing technique is concerned with gathering evidence across a heterogeneous group of participants in order to identify convergent themes – thereby reducing the impact of bias. Dick (1998) states: “Most questions, and for that matter the sample size, are determined on the run, from interview to interview”. For this study, the following role holders will be interviewed: Faculty Managers, Team Leaders, Faculty Officers, Faculty Assistants, Registry Managers, Registry Officers, Assistant Managers and the Academic Registrar. The Reference Group will initially be consulted to identify a person defined as the most representative of the population. The group will then decide on the next most representative but unlike the first person and then the next most representative but unlike the first two. This continues until the data collected converges to the point that no new insights are determined.
6. Train the interviewer(s): CI is often carried out in teams of pairs of interviewers. For this project, there will be a single interviewer. Dick (1998) states that the single interviewer is appropriate.
7. Plan the interview: decide on the opening question – as mentioned above; “Tell me how the proposed changes to the team including the introduction of SID might affect your teams’ identity”? The aim in CI is to allow the respondent to talk freely for as long as possible without interjecting with supplementary or probe questions. To elicit specific information probing questions can be used late in the interview where specific issues are being examined. Point 7 is the beginning of a cycle of activities that starts with the actual interviews.
8. Conduct the interviews: the interviewer can take hand written notes comprising key points only. The interview will be recorded using Sonocent Audio Note taker software to support later analysis. The main aim at the beginning is to put the interviewee at ease. The interviewee will explain the purpose of the interview

and state that any records from the interview will be anonymous and confidential, how the data will be stored and who will have access to it. The main question is asked; the expectation is for the interviewee to talk for up to an hour. At the end of the interview the interviewer can ask the interviewee to summarize the key points. Clarify any unclear points. Probing questions can be used more extensively in later interviews to gain deeper insights into the issues raised.

9. Interpret the interview: the output of the interviews is interpreted and noted in writing. Initial interpretations are often quite short up to half a page but over time subsequent interview interpretations are added to the initial report so the final report will be quite extensive.
10. Compare the interviews: after two or more interviews, the texts are compared only focusing on information that occurs in all interview notes. Information that agrees and information that disagrees is noted. A probing question is then developed to test whether the agreement is always true. Where there is disagreement a probe question is developed to find out when there might be agreement.
11. Review the process: in the light of the interviews to date the process is reviewed and if necessary modified for example the sample can be changed or the probe questions adjusted.
12. Recycle: this is the central component of the technique. The process continues from point 8 to 11 until the information collected stops providing any significant information.
13. Compile a combined report: a report based on all interviews is compiled and a decision made on what to do next. The report could either be final or could lead to a new cycle of interviews.

During the research period documents and files relevant to the project will be collected. Relevant documents are defined as any objects, files, email, documents or other items that provide evidence to support the development of the actor-network in question.

2.3.2 Participant Observation

Participant observation was used throughout the data gathering process. The researcher was a member of one of the teams under investigation and therefore was included in the organizational and technological change. This allowed for hands on observation of meetings and software in use including own use of the SID system. A software development meeting that included members of staff from the software vendor

and members of staff being consulted on needs was observed. Notes relating to observations were recorded in the research diary.

2.3.3 Document, Collection, Review and Analysis

Document collection and review was incorporated into the study as a way of uncovering background information relating to the technology change. Documents included business cases, project management documents, technical documentation, emails between staff members relating to the projects and related conversations. Permission to use the documents was gained from the relevant Director. Documents relating to the SID system were reviewed.

2.3.4 Technological Artefacts

The investigation of technological artefacts is a cornerstone of ANT-based research information systems projects (Tattnal, 2011). Technological actors in an ANT context are considered equal to human actors and are treated as entities that should be interrogated equally. As technical system actors cannot speak for themselves the products of use, reports, user interfaces are investigated and used as 'voices' to speak on their behalf. The SID system, related technologies, users and managers are integral to the building and development and implementation of the new system. Technological artefacts include the system itself, the interface related training documents, input and output, technical manuals, ICT systems and the components constituting the platforms supporting the system. Financial documents, planning documents, system reports also constitute technical artefacts that together form the entirety of the system. Technological artefacts were recorded using screenshot software and document collection.

2.3.5 Data Analysis

According to Wright and Bhatt (2016) ANT projects are difficult and "elusive" in providing information on how to carry out analysis of data. Latour (2007), indicates that the researcher should keep a series of notebooks for recording and analysing data throughout the phases of an investigation – keeping a log of the enquiry, keeping a log of the chronology of the project, a log of general observations and a log of the effects of the project on the actors. Latour also suggests that computer aided software can be used for the same purpose and he points out that much can be made of the reshuffling of data (Latour, 2007, p. 134). The qualitative data analysis application NVivo was used to write codes to the data and to map convergences and identify themes. Using Miles and Huberman (1994) as a guide, a coding system was developed see Appendix D Start

List of Codes. Prior to starting the coding in NVivo a series of summary contact forms were developed (Miles and Huberman, 1994). These forms provided a focus for the development of themes, see Appendix E Contact Summary Sheet.

The coding scheme developed from the conceptual framework was then input to NVivo and transcripts were then analysed against the coding system.

2.3.6 The limitations of NVivo

NVivo is extremely useful for storing and coding qualitative data especially where there is a large amount of material. The system can manage a wide range of data sources including, recorded audio, documents in a range of formats such as MS Word and PDF, video and web pages. To work effectively, developing a coding system prior to the start of the coding exercise enables the researcher to design codes based on a conceptual model rather than developing codes on the fly. There are however many challenges for the researcher when using the system including, managing the volume of codes (or nodes) and bringing clarity to the analysis. NVivo can create complex queries relating to the data in the form of matrices (Houghton *et al.*, 2017) but there is a need for the researcher to plan the design of these in advance. NVivo is only able to make sense of data if the researcher has planned the nature of the output expected.

Chapter 3 Literature Review

This chapter describes and comments on changes to university student support structures, plots the development of the student as customer and the associated development of the customer service ethos in the areas of university library and IT service desks and associated standards and how these have influenced university professional service teams. The drivers of organizational change, change management and the influence of technology on organizational change are introduced. Language used to describe and attempts to define the changing relationship between students and institutions are outlined. The increasing focus and importance of student satisfaction and student experience are examined in the light of the subject of this organizational restructuring. ANT is introduced including core terminology, issues relating to ANT ontology, micro and macro levels of analysis, core principles including a discussion on the agency of non-human actors. Issues relating to organizational and team identity are introduced specifically through the lens of ANT and the imposition of identity and identity change.

3.1.1 Knowledge Gaps

The purpose of the literature review is to allow the author to develop an understanding of the subject matter and to identify potential gaps in knowledge relating to the topic of consideration. The literature review provides an overview of historical and contemporary accounts of the subject matter and allows for the development of an understanding of the key theories relating to the topic. One of the main considerations of the literature review is that it provides the author with examples of the key issues and how these are dealt with in related research practice (Hart, 2009). The following sections outline the gaps found because of carrying out the literature review.

3.1.2 Introduction: The Student as Customer

This chapter presents a review of literature as it relates to the university sector as they have impacted on professional service and administrative teams and the introduction of administrative help desk and support desk systems. The concepts student experience and satisfaction are compared and defined and are shown to be drivers of the change these include the language or metaphors used to refer to students and how these have shifted over time from terms such as knowledge absorbers to customers or clients of educational services. How university service teams have responded to these changes in perspective and expectation are examined.

Academic library services are reviewed as a driver for the creation of customer centric services in the university sector especially as a place where the concept of the student as a customer has gained significant traction. In many universities, the academic library has been at the centre of the introduction of IT based online services and has been at the forefront of responding to changing student / customer experience and expectations. The chapter discusses how the introduction of IT service desk systems into universities has led to the introduction of similar systems to support other non-IT administrative teams as a way of providing support to customers providing support to customers.

The aim of the chapter is to provide a context and understanding of current thought and developments around university customer service support and the use of service desk technologies. The chapter provides a review of the language currently being used to describe students for example as customers or clients.

University administrative support teams have tended to be more open to the use of terms such as students as customers than academic staff. This acceptance has led to the professionalization of support and administration teams and in many cases, changes have been led and adopted by IT support teams and Library services teams with other administrative support team following.

The development of customer focused services has in some areas lead to professional and administrative support teams engaging with external customer accreditation schemes such as Customer First and Service Excellence. University IT services have increasingly adopted service standards such as PRINCE2 for projects and ITIL for service desk quality management and have in many cases adopted automated service desk solutions. Computerised IT service desk systems are now increasingly being adopted by other university service areas such as student administrative support teams, Estates and Facilities, Registry and Exams services and Library service teams.

The university sector has faced numerous challenges over the past twenty-five years. One of the most significant challenges has been the expansion of the sector in 1992 when the Major Government introduced the Further and Higher Education Act 1992 that granted university status to polytechnics, central institutions and other colleges. The other major change to the sector was the introduction in September 1998 by the then Labour Government of the £1000 tuition fee followed by gradual removal of student support grants. Tuition fees continued to increase between 1998 and 2016 to the current fee of £9000 per year (Anderson, 2016).

A consequence of the introduction of tuition fees has been a change in perspective in terms of what it means to be a student, for example researchers are increasingly

concerned with how students' perspectives are changing from being passive recipients of knowledge to active participants or customers (Budd, 2016, Mark, 2013, Eagle & Brennan, 2007)

Changes to university policy and management have also affected administrative services and these have had to come to terms with dealing both with students as well as academic staff as customers (Scott, 1999).

The focus of much research into Higher Education students as customers tends to be on the student as a customer, client, consumer, co-producer of knowledge or as collaborators of learning and teaching in higher education (Tight, 2013, McCulloch, 2009). The changing metaphors are important because it can be said that they have tracked changing attitudes and to and by higher education students over the past 20 – 30 years and these attitudes have in turn changed the behaviour of staff in higher education institutions especially amongst professional support team's whilst at the same time these changes have challenged academic staff to reflect on the relationship between themselves and their students. This in many instances has proven to be more difficult for higher education institutions to come to terms with (Tight, 2013).

3.1.3 Student Experience and Student Satisfaction

It can be argued that at the heart of the student as customer, client metaphor are the dual concepts of student experience and student satisfaction. How these terms are defined and measured and how the concepts have become 'currency' in higher education institutions in terms of its impact on university rankings, student choice, institutional differentiation, competition, funding and resources is relevant to this research. Student experience and student satisfaction are both concepts that have become subject to increasing research over the past 15 years. This is mainly due to their impact on university league tables and how they are perceived as drivers of change in the sector.

The term 'student experience' was coined in 1992 by Harvey, Burrows and Green in their publication *Total student experience: A first report of the QHE national survey of staff and students' views of the important criteria of quality* (Harvey *et al.*, 1993). Harvey *et al.*, state that the student satisfaction is "*not restricted to the student experience in the classroom but to the total student experience*".

It is useful to define the terms student experience and student satisfaction. Reading the literature, there is a fair amount of interchangeability of the terms. The main United

Kingdom measure of student experience and student satisfaction is the National Student Survey (NSS). The NSS website states that the survey is:

“Aimed mainly at final-year undergraduates, it gathers opinions from students about their experience of their courses... The NSS asks 23 questions, relating to six aspects of the learning experience, including one about overall satisfaction...”

(National Student Survey, 2016). This statement follows closely on from Harvey, et al (1993).

As can be seen from the NSS and Harvey et al statements student experience and student satisfaction seem to relate to one another in some regard, but it is not clear from this how or what differentiates them. Satisfaction has been identified as a component of experience in terms of satisfaction with the overall student experience. Student experience has been defined in Canada as the dimensions of educational experience, including curriculum, teaching, analytical skills, communication skills, social skills and personal growth (Kwatlen Polytechnic University, 2003). Satisfaction with the experience tends to be an overall score for the dimensions and has also included other non-educational dimensions such as the ability to gain employment at the end of a programme of study.

Douglas, Douglas, McClelland, & Davies (2014), take a similar view in their research with first and final year students who described themselves as being satisfied or dissatisfied with areas of teaching and learning and the supporting service environment. (Benckendorff, Ruhanen, & Scott, (2009), have attempted a formal definition of student experience but make the point that a formal definition of student experience although part of the ‘vernacular’ a definition is highly elusive and related specifically to the higher education institution where it is measured and to the services offered.

A large part of the concept of student support is the need for an institution to adapt to the needs of different cohorts of students, Benckendorff et al (2009). Related to the concepts of student experience and student satisfaction are the issues of academic quality and continuous process improvement.

A journal search using the term ‘Student Experience’ returns 1,187,865 references between the period 1919 and 2016. Between 1970 and 2016 the number of references is 1,166,756, which indicates that between 1919 and 1969 there were only 21,109 references to ‘Student Experience. From the introduction of fees in 1992 and 2016 1,098,751 journal papers were published. This indicates that 89,114 papers were

published between 1919 and 1991 which indicates that interest in the concept of 'Student Experience' grew by 1133% during this period.

The top ten of 58 subject areas that mention 'Student Experience' published in journal papers can be found in the following table:

Subject	Count of references
Education	295,077
Medicine	192,586
Psychology	147,024
Business	96,534
Economics	71,270
Social Welfare & Social Work	70,115
Languages & Literatures	64,149
Engineering	61,565
Sociology & Social History	57,989
Public Health	55,574

Table 5 Top 10 Subject Areas in Published Journals Mentioning 'Student Experience'

Further examination of journals published prior to 1970 show that the term 'Student Experience' has a different connotation to that used post 1970 and especially since the introduction of fees in 1992. In the 1950s in both the UK and USA the use of the word experience related to a students' experience of education and how this might have influenced their interest in a subject of study (Matteson, 1955, Peltz, William L; Steel, Elinor H; Wright, 1957).

Changing the search term to 'Student Satisfaction Higher Education UK' demonstrates more profoundly the change in attitudes to students with 525 journal articles published between 1919 and 1969 and 33,694 between 1970 and 2016. Again prior to 1970 journal articles that mention the search terms 'Student Satisfaction Higher Education UK' discuss issues that are different conceptually from the current understanding of 'Student Satisfaction'. The concept of Student Satisfaction as understood now can be traced to the inception of the National Student Survey (NSS) in 2005.

The NSS was first piloted in 2004. The NSS is one of the factors contributing to UK university league table position (Douglas *et al.*, 2014). Student satisfaction and student experience are both factors that are increasingly being used in feedback from surveys to influence and improve the quality of services and increasingly curricula, teaching and learning (Stukalina, 2016).

Higher education professional support teams – Human Resources, Library Services, Marketing, Estates and Facilities, Finance, Student Services and student administrative services have taken a leading role in the development of customer focused services to support student learning and teaching and research with tools from the manufacturing sector being adopted for example Total Quality Management and Lean (Balzer, William *et al.*, 2016).

In 2007 the coalition of small research active universities known as the 1994 Group published a policy statement Enhancing the Student Experience (1994 Group, 2007) that stated that:

“Student Experience’ is a wide-ranging term meaning different things to different kinds of students. An 18-year-old undergraduate or foundation degree student, living away from parents for the first time, discovering independence, has a very different experience of university to a 40-year-old masters student, living at home with partner and children, balancing a full-time job with part-time study.”

The 1994 group policy statement highlighted three critical issues that have since influenced the ongoing development of university professional support services, these are the swiftly changing environment, increasing student expectations and the need for universities to continuously enhance and strengthen their commitment to excellent teaching, support and facilities. The policy also confirms the view that charging undergraduate student fees has led to the commodification of higher education and has increased the emphasis “*from some on the idea of students as ‘consumers’*”.

The student as customer tends to have support amongst some senior level administrators and some institutions are investing in externally accredited customer service standards as part of their strategy to improve overall student experience (Bothwell, 2016). However, the student / customer dichotomy tends to be limited to professional services teams and not to the learning and teaching element of university life (Dorey, 2015). Academic staff have not engaged with the customer service philosophy in the same way that professional services staff have tended to do (Warren, 2016).

3.1.4 Library and Information Services

A leading area of customer service development in higher education service provision has been library services (Long, 2012, Blevins, Amy, DeBerg, & Kiscaden, 2016). It is clear that there has been a change in perspective from student to customer and that this perspective has developed to an extent from the commercial business sector (Sigwald, 2016).

University academic libraries have been on at the leading edge of responding to changes in student expectations 24 hours opening, online service delivery, ability to change personal details without staff intervention and online book reservation and renewal. According Oud & Genzinger (2016a), these changes have been in response to the decrease in traditional library services and the decline in in-person reference questions.

One of the drivers for automated self-service has been a move toward cost savings but alongside this and possibly more importantly has been the move online of many library services (Oud and Genzinger, 2016b). The development of online library services since the early 2000's and the development of more online commercial services has normalized the use of the internet and users now demand that library services should be online (Oud & Genzinger, 2016). Oud and Genzinger (2016) argue that library reference and circulation desks should start adopting the same customer service excellence strategies that corporate businesses have been developing and using for several decades. The rationale for this is to respond to the changing user expectations in a climate of an *"increasingly service driven economy"*.

Some university academic libraries such as University Library Services Sunderland have embraced business based quality management and customer service systems (Grieves and Halpin, 2014) and have redeveloped and redesigned services to better meet the needs of customers. Grieves and Halpin explain how the university library revised its service delivery plan and adapted it over a four-year period to become customer focussed through the implementation of a quality model, a seven-step internal marketing campaign and nine quality promises. Some of the key aspects of the quality model are the introduction of a quality promise timeline which allows for coordination of services throughout the academic year and assists with staff development.

This trend in developing university library services is not only limited to the UK but is also being implemented globally. For example, in Australia the University of Melbourne has implemented a customer service improvement process because of similar drivers,

cost cutting, fee payment, expectations. The university library is working to a cycle of continuous service improvement and increasing its use of digital content management software (McRostie, 2016).

Melbourne University Library is now making use of service delivery metrics which are used to support evidence-based decision making for improving services in the face of cost reductions. Ultimately the aim of these new business / client focussed services is to be able to meet changing expectations. Many of the external pressures are leading to significant internal organizational change. Many of the external pressures are leading to significant internal organizational change.

ICT user support in universities has also moved online with the development of the IT service desk and the increasing reliance on self-service systems. The service culture in the university sector has had to come to terms with the demands of students who have grown up with a multitude of online commercial services and have an expectation that universities will provide the same level of availability. Christopher (1984) stated that the essence of customer service is the provision of 'availability'. Christopher (1984) recognised the increasing sophistication of the customer alongside the continuously developing expectations.

The university sector is increasingly competitive, and students are looking at how institutions differentiate themselves. Value for money is also a significant consideration when it comes to the reason why a university applicant will select an institution. This is linked to rising expectations in terms of teaching contact hours and services offered (Bates & Kaye, 2014). Students are increasingly willing to make complaints and to follow these through to the Office of the Independent Adjudicator (OIA), (Bates and Kaye, 2014).

3.1.5 From Helpdesk to Support Desk

It is interesting to note that the process of service improvement in the academic university library service has adopted some elements of the Lean Agile philosophy in particular incremental development towards a goal and continuous consultation with customers and stakeholders (Taymor, 2016). The influence of Information Technology on the development of some services in universities is not surprising. Information Technology has developed a series of quality standards that have been adopted within university IT service teams. Of these the most familiar to users (whether they explicitly know it or not) is ITIL or the Information Technology Infrastructure Library.

ITIL is a best practice business improvement process that works to align “*IT services to the needs of the business to support its core services.*” (Axelos, 2016). The IT helpdesk service has influenced the development of other university services through the introduction of service standards. This is especially the case where information technology has been used by service technicians to communicate with customers or to receive service requests from customers. In the 1980’s the IT helpdesk became common across businesses as the main method for customers to notify technical failures to the technical team (Small, 2013).

Subsequently the helpdesk was superseded by the concept of the Support Desk. Support desk systems were developed from IT Helpdesk systems at the end of the 1980’s. Help desk systems were introduced into commercial companies during the 1980’s as a way for users of PC DOS based computer systems to communicate with back office support staff and have their problems resolved (Small, 2013). The concept of the Service Desk was developed at the time that the ITIL ICT Service Desk standard was introduced in 1988. The ITIL standard is based on five books; Service Strategy, Service Design, Service Transition, Service Operation and Continual Service Improvement (Rafflesia and Surendro, 2015).

The standard was first developed by the UK Central Computer and Telecommunications Agency (CCTA) with the aim of implementing a quality standard in recognition of the increasing importance of computing in business (IBPI, 2011). Up to 2014 ITIL was owned by the UK Office of Government Commerce (OGC). OGC was incorporated into the Cabinet office in 2011 (IBPI, 2011) and the standard is currently a Joint Venture between the Cabinet Office and AXELOS. AXELOS provides certification via private training organizations.

The concept of the customer support desk has recently been extended to areas that it was not originally designed for, for example in the university sector, as a method of communication between students and administrative services such as Registry or Finance teams. In these instances, the same software used for IT support service desks is being rolled out for administrative teams to use. currently, there is very little research into the area of professional support staff use of software that enables support to students, learning and teaching (Graham, 2013).

One of the challenges that university administrative support teams are likely to need to come to terms with alongside the introduction of software systems is whether and what service standards might be relevant. The ITIL standard is likely to not be relevant to these other service areas.

3.1.6 Service Desk Technologies and Standards

A large part of the literature relating to exploring the subject of teams and groups dealing with student and academic support in Higher Education are based in the setting of the university library. These studies provided useful information on how some parts of the university sector have adopted standards and service desk technologies to improve customer satisfaction. However, no evidence was found that provided insights into the use of similar service desk technologies, or standards in the setting of Faculty administrative support. As described by Holstrom and Robey (2005) one of the critical issues for ANT research into technological and organizational change is the role of technological agency and its impact on change programmes. This is a key area that this research project examines.

3.2 The Drivers of Organizational Change

According to Whelan-Berry, Gordon, & Hinings, (2003),

“Change drivers are events, activities, or behaviours that facilitate the implementation of change by providing an understanding of the need for change, describing the change vision and initiatives, fostering or training employees on new work routines, processes, models, and or values, or embedding changes in the culture.”

Whelan-Berry et al identify leadership as one of the key drivers of change due to the leader’s responsibility for deciding on whether to initiate a change or not and what strategy to employ to manage the required change.

Organizations increasingly find themselves operating in an environment that is fast moving and where technology is playing an increasingly influential role in the development of products and services. The key drivers of organizational change have been identified in the literature as globalization especially in terms of organizations that operate internationally (Garcia and Gluesing, 2013). The drivers of change seem to be reasonably consistent across sectors, fields and industries. An example from UK clothing manufacturing cites economic, people, markets, the environment, technology, suppliers and competition as the factors relating to organizational change (Bruscas *et al.*, 1998).

Dool (2010) states that many organizations now operate in a state of permanent volatility and has identified seven drivers of change; macro-economic factors, increased connectivity, technology innovation, faster innovation, increased and broader competition, change in business structure and increased governance / regulation. Dool

identified continuous organizational change as a clear cause of work-based stress leading to burn-out, resistance to change, absenteeism and high turn-over of staff.

Internal drivers of change are also significant and include the age of the organization, changes in size, moving from informal to formal controls, changes needed to products and services due to their age, structural inertia (Barnett and Carrol, 1995) strategy, culture, people restructuring and reorganizing, poor performing teams, the need to replace technology are all factors contributing to the need for change (Král and Králová, 2016).

Many UK universities operate in a global market and are subject to increasing competition, political intervention, fee regime changes, demands for more choice (in terms of places) and changing student expectations (2009) sector is having to do more with less whilst increasing the quality of services and improving the student learning experience. The authors argue that change in the sector is now endemic and over the past few years there has been a change toward marketization of the sector resulting in the need for institutions to implement significant and complex change programmes. having to do more with less whilst increasing the quality of services and improving the student learning experience. The authors argue that change in the sector is now endemic and over the past few years there has been a change toward marketization of the sector resulting in the need for institutions to implement significant and complex change programmes.

For many universities students and their experience of higher education are now the main drivers of change (Staddon and Standish, 2012). This view is supported by the XXX University in internal situational analysis used to support the organizational change proposal (Appendix L: SID32

pp, 323). By (2005) identifies globalization, deregulation and “*the rapid pace of technological innovation*” as the key drivers of organizational change and customer demands are highlighted by Milling & Zimmermann (2010) as critical change drivers.

3.2.1 Organizational Change and Managing Change

According to Moran & Brightman (2000) change management is

“...the process of continually renewing an organization’s direction, structure, and capabilities to serve the ever-changing needs of external and internal customers.”

The authors point out that “*the rate of change is greater than at any time in history.*” Moran & Brightman point out that people facing change in an organizational setting are

impacted in terms of three drivers of work-based behaviour; purpose, identity and mastery and that the role of change management is to control, as far as possible, internal and external factors that impact on these key '*activators of workforce performance*' (ibid).

Moran and Brightman (2000) identified three 'powerful' drivers of change; purpose, identity and mastery where purpose relates to the workers' sense of purpose regarding their work, identity relates to an individual's sense of personal integrity and consistency over time and how the organization and its changes relate to how the individual sees themselves and how they perceive their professional identity and mastery relates to an individual's work-based skills, training and education and the resources the organization applies to supporting continuing development and training.

By (2005) identifies the rapid growth of technological innovation as another key driver of organizational change alongside a workforce that has shifted from being low skilled manual labourers to being highly educated knowledge workers. By points out that most change programmes, around 70%, fail to achieve their stated goals. The conclusion drawn from this is that many change processes contain fundamental flaws (ibid). Over the past 60 – 70 years several change models and theories have been developed the earliest of which is still prevalent today.

After the Second World War interest in industrial organization and the sociology of industrial production increased as a response to the need to improve industrial production (Elrod, P. David and Tippett, 2002). The Tavistock Institute was particularly influential in the development of research into organizational change (By, 2005a). In 1947 Kurt Lewin published *Frontiers of Group Dynamics* (Lewin, 1947) in which he outlined the three-part model of change known as the Planned approach to change; unfreeze, moving to the next level and re-freeze. The planned approach to change focuses on the need to change behaviours, culture and structures and the adoption of new ways of working (By, 2005a).

Around the time that Lewin was investigating and developing his three-stage model of change other researchers were starting to consider the reasons why change is resisted. In 1948 Coch & French investigated why employees in American industry resisted changes related to reorganisation. Coch and French, (1948) carried out field work at the Harwood Manufacturing Company. The company had implemented frequent product and production line changes due to changes in the commercial environment and customer demand.

Harwood Manufacturing had implemented several new production lines but found that although the company had an excellent record of industrial relations and a highly consultative attitude to implementing change it still found that every change resulted in a reduction in production rates, absenteeism and turnover of staff.

The findings indicated that resistance to change was a combination of individual frustration with the change (often stemming from the need to re-learn) and strong group-induced forces – these were often linked to negative feelings towards management. Coch and French concluded their research by suggesting that resistance to change can be minimised using group meetings where the management team clearly communicates the need for the change and stimulates group participation. Coch and French concluded their research by recommending that organizations should make use of Action Research as a method of resolving change resistant situations.

Although these findings are 70 years old they are still relevant in today's organizational environment and will be considered later in this thesis.

In 1965, Joan Woodward (Woodward, 1980) published in book form the results of the first major investigation into British industry and the impact of the introduction of technology. Woodward was a proponent of contingency theory and was one of the first to publish academic papers on technology and organization and through a series of case studies across a wide range of industrial manufacturers looked at the relationship between technology advance and line management span of control, wages, ratios of managers to total personnel, numbers of clerical and administrative staff in relation to manual workers and the numbers of graduate to non-graduate supervisors in production departments (Woodward, 1980).

Woodward states that the main conclusion of the research project was the link between technology and social and organizational structure. Not only was the link clear but it could be shown to exist through empirical observation (Woodward, 1980). Woodward suggests that although there are many different factors influencing the process of organizing including managers' ability to delegate decision-making effectively, history of the company, personalities in the company and management ability, technology was found to be the one variable affecting organizations that was easily isolated during studies.

Interest in organizations, technology and change continued to the present time with many streams of research stemming from the work of Veblen, Woodward and Lewin.

By (2005) carried out a review of the major models of change and characterised organizational change as either discontinuous, incremental, bumpy incremental, continuous and bumpy continuous. By (ibid) characterises change by how it comes about. The types of change identified are as follows; Planned, Emergent, Contingency and Choice. Planned and Emergent change being the two characterisations that dominate much of the literature relating to managing change (Bamford and Forrester, 2003).

The planned approach to change described above has become increasingly criticised by scholars for being too focused on small scale incremental change, being management led, carried out in organisations that operate within stable settings and all stakeholders are willing to implement the proposed changes. Planned change has also been criticised where a change situation occurs rapidly so there is little time for planning or consultation.

Because of these criticisms, the concept of Emergent change was developed. Emergent change shifted focus from a management led process to a bottom-up process with the aim of being able to respond to the increasingly rapid pace of change and the need for change to be devolved across the organization.

Due to the diversity of organizational situations leading to the need for organizational change and the recognition that the Planned change and Emergent change models had failed to deliver consistent results a number of alternative theories emerged between the 1980's and 2000's. Elrod & Tippett (2002) cite 15 change models covering the period 1952 starting with Kurt Lewin's unfreeze, move and refreeze to Keegan's Double Loop Unfreezing of 1994 and Burnes (2004) discusses Beer and Nohria's Theory E and Theory O models.

A number of researchers have identified change as having a significant psychological impact on members of organizations and depending on the extent and how significant the change is seen to be the result can be similar to how people feel when faced with a life threatening situation (Vakola & Nikolaou, 2005 & Elrod, P. David & Tippett, 2002). Some reactions to organizational change can include feelings of loss, trauma and grief and these responses have been associated with the same stages that people with terminal illnesses go through including denial, anger, bargaining, depression and acceptance (Kübler-Ross, 1997).

Kübler-Ross found that a common reaction among people who had been diagnosed with a terminal illness was grief and that grief always included a feeling of anger.

Organizational change processes also tend to result in similar feelings of grief and anger and tools for helping people to manage through these feelings.

The Kübler-Ross model has been visualised as a graph by subsequent researchers and has been adopted as a standard model of response to change in organizations – versions of change models influenced by Kübler-Ross' can be found in illustration's two, three and four.

Imara's stages of personal grief 1975 (Elrod, P. David and Tippett, 2002)

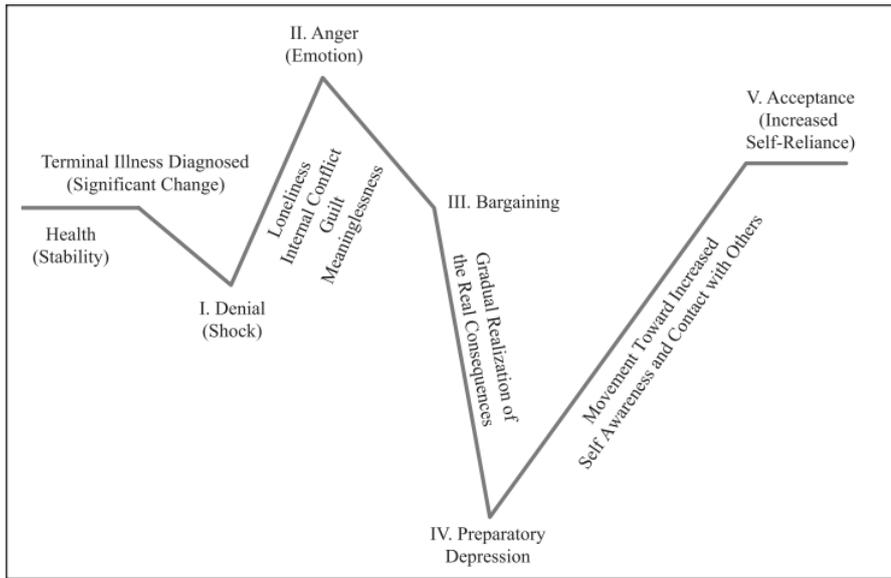


Figure 6 Imara's stages of personal grief (1975)

Imara graphically illustrated the Kübler-Ross stages of death and this model led to the development of a series of models that have become common in change management literature, training and practice.

Bupp's International Association of Machinists and Aerospace Workers (IAMAW) change model 1996, (Elrod, P. David and Tippett, 2002).

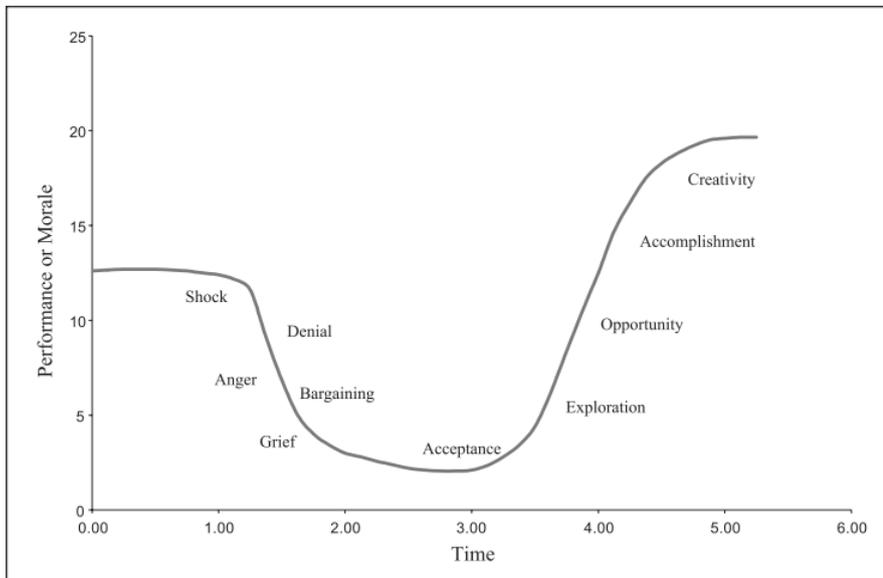


Figure 7 Bupp's International Association of Machinists and Aerospace Workers (IAMAW) change model (1996)

The change curve has been through several evolutions with one of the commonest being John Fisher's Personal Transition Curve (1999, 2012).

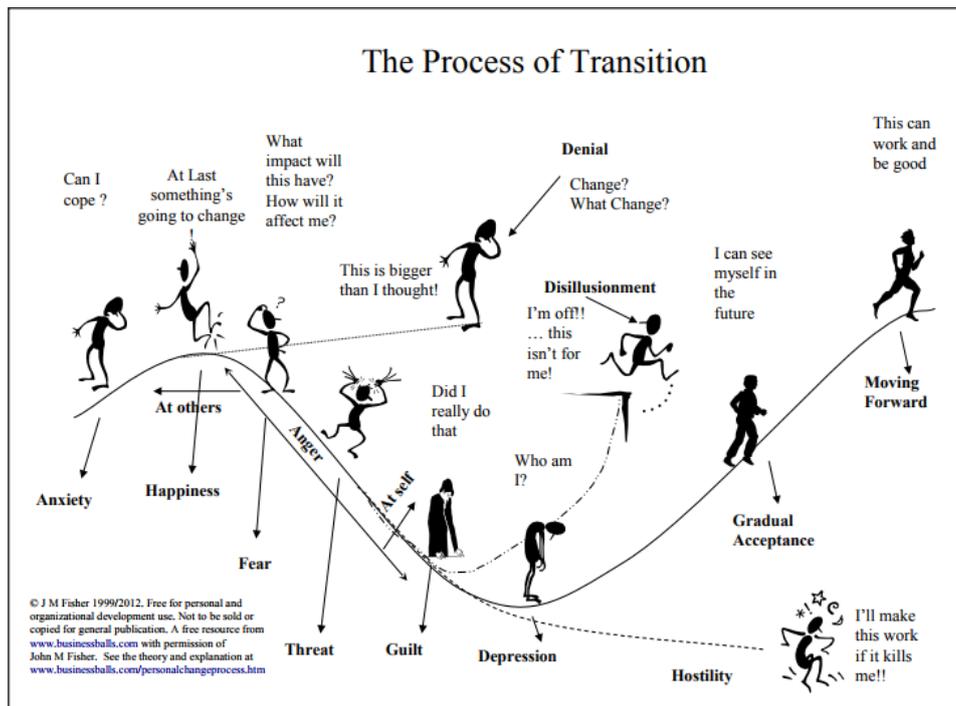


Figure 8 Fisher's Personal Transition Curve (1999/2012)

Fisher's Transition Curve has been adopted by many organizations as a model to assist successful organizational change and has been developed into a toolkit for use by UK public service organizations (Leeds City Council, 2015).

A clear finding from the review of the literature on organizational change is that there is no single model that can be successfully applied across organizations and fields and that can reduce the risk of failure of change projects. One of the criticisms of organizational change models is their fragmentation in terms of levels of analysis, micro, meso or macro (Jacobs *et al.*, 2013). What is needed is a model that combines relevant aspects to provide a more comprehensive model.

In recent years, other models and frameworks have been developed that have attempted to synthesize existing models and to develop approaches that might be applicable to a variety of organizations and circumstances. For example Jacobs *et al.* (2013) proposed an integrated framework that simultaneously takes account of the micro and macro levels of an organization.

Other models include variations on Lewin's original Action Research, Simple Phase Model, Change Process Model, Appreciative Enquiry and Diffusion of Innovations.

What the preceding models have in common is a primary focus on the impact of change on human subjects who are affected by a top-down change process or engaged through consultation as part of a bottom-up process. The models discussed in this section tend to lack any concern with non-human artefacts, equipment or technology. The next sections will extend the discussion of change into the area of groups, identity and ANT and the entanglement of humans and non-humans (artefacts and technology) and the development of networks of association.

3.2.2 Technological and Organizational Change

As stated above, the introduction of technology into the organizational setting has been identified as a driver for organizational change and changes in working practices. Technological change has been an influencing factor probably since the start of the industrial revolution if not before impacting on organization, organizing, sociological factors and human evolution (Ambrose, 2001).

This can be illustrated through the early investigation into changes in mining technology and the impact of this on organizational socialization after the Second World War by the researchers Trist and Bamforth (1951) of the Tavistock Institute. Phillips & Bria (2013), discuss Joan Woodward's Technology and Programmability theory and highlight how Woodward's central insight is that the nature of technology introduced and used in an organization has direct ramifications for how the company should be organized.

The impact of technology on society and on workers was first identified in 1904 in the publication *The Theory of Business Enterprise* (Veblen, 1904). Veblen discussed how the technological advances introduced in England during the industrial revolution impacted on culture and the role of working people in industrialised societies. Veblen comments on how machines started to determine how work processes were carried out and leads to the realisation that there is a working partnership between the worker and the machine. The worker is in effect the intelligent agent in the partnership but the machine limits and dictates the scope of the work that can be carried out and determines the scope and scale of transactions or the mechanism thereby imposing an 'absolute need for conformity' (Veblen, 1904).

Per Veblen prior to the English industrial revolution continental Europe and Great Britain society and business practice was tied into practices of the seventeenth century. The introduction of mechanized processes and machinery led directly to standardization of production, products, working conditions and the growth of interest in management

science, management practice, change, the impact of change, organizing and organizational behaviour.

It is worth noting that Veblen hints at an issue that was to exercise management theory some 70 years later. Veblen *“He now does this work as a factor involved in a mechanical process whose movement controls his motions.”* And

“It remains true, of course, as it always has been true, that he is the intelligent agent concerned in the process, while the machine, furnace, roadway, or retort are inanimate structures devised by man and subject to the workman's supervision. But the process comprises him and his intelligent motions, and it is by virtue of his necessarily taking an intelligent part in what is going forward that the mechanical process has its chief effect upon him.”

Veblen (1904).

Veblen presages and possibly influences one of the primary theoretical and ontological elements of ANT, material agency or the agency of non-humans (Latsis, 2010). Related to ANT's concern with non-human agency, Veblen's views on the influence of technology on organizations has also led to investigations into materiality, Socio-materiality, Socio-material Practice, Social Agency, Material Agency and Socio-Technical Systems.

3.3 Actor-Network Theory Introduction

“Do you sometimes speak of the Government? Or the Internal Revenue? Or your car? Or your employer? Or the Russian Federation? Or your computer? These are putative actors too, networks of more or less successful orderings. For certain purposes you speak of them as agents.” (Law, 1994).

Which is more important, the smoker or the cigarette? This question encapsulates all of the main concepts of ANT.

This section covers ANT history, philosophical underpinning, criticism, and applicability to this study. This section introduces the key theoretical resources from ANT and outlines the use of these across a range of disciplines and fields and covers how these are applied within this project.

The section introduces the core conceptual tools that provide the basis of the lens through which the subjects of the study were traced and data from the study analysed. ANT has become an established conceptual framework, method or theory over the past thirty years. Founded within the discipline of the Sociology of Scientific Knowledge

(SSK) ANT has subsequently and slowly become a mainstream cross-disciplinary approach.

ANT is often thought of as confusing and obscure and difficult to apply in practice. There are hundreds of journal papers and several books on the subject, many by the originators. ANT has developed a vocabulary of its own as a toolbox for describing in neutral terms networks of association. ANT is fluid in nature and changes depending on area of interest and how ANT is deployed. The language used in many of the journals and books tends to lean towards sociological, philosophical and even meta-physical topics often bound up in French philosophical writing of the late twentieth century. These include philosophers and theorists such as Michel Serres, Michel Foucault, Gilles Deleuze and Felix Guattari. On the other hand, many researchers have used a systematic formulation of ANT as a way of focusing their research.

ANT was conceptualised in the late 1970's early 1980's by three academics, Michel Callon, John Law and Bruno Latour who had been working in the field of sociology and technology and SSK (see above). In 1979 researchers Bruno Latour and Steve Woolgar published the results of an ethnographic study carried out in the Salk Institute with the aim of finding out how scientists create scientific knowledge (Latour and Woolgar, 1986). The book was not an ANT study but contained several early ANT concepts for instance the focus on human as well as non-human (technological) devices and their combined role in the development of chemical components and their focus on the development of scientific knowledge as a series of controversies and negotiations. The book also introduced the concept of radical symmetry where social and non-social explanations cannot be known prior to the end of the study (Michael, 2017).

For this literature review seminal ANT texts by Latour, Law and Callon have been reviewed and then a wide range of literature considered covering several disciplines and authors covering the past thirty years and up to the present day.

ANT can be considered as being composed of two distinct versions – what can be described as 'classic' ANT which covers the period from the early 1980's up to 1999 when the term Actor-Network Theory and After or After ANT was coined by John Law and John Hassard (Law & Hassard, 2005) and Michael, (2017).

ANT is fundamentally a sociological lens that views the world differently from what could be described as standard sociology, or the sociology as described by Emile Durkheim. The main difference between ANT and the standard sociological perspective is ANT's emphasis on including human as well as the non-human in accounting for explanations of sociological development, the focus on heterogeneous associations or relations

between entities or actors, the move towards a 'flat' ontology where differences between micro, meso and macro/local and global/nature and society are considered to be on the same (micro) level and the focus on power and how power is an effect of heterogeneous networks rather than a constitutive part of any particular person or thing (Latour, 1984).

3.3.1 Justification of Actor Network Theory

ANT has been selected for this research project as an appropriate lens, theory and method because it has long been used in Information Systems research and its use in organization research. ANT has been used to investigate the impact of technology innovation within organizations and implications for people (Tattnal, 2011). One of the main reasons for the use of ANT is its equal treatment of human and non-human elements that exist in networks of association, section 3.3.5 .

ANT was considered appropriate because of the views it takes on the agency of non-human actors, section 3.3.8 . ANT can be applied practically through consideration of the influence of humans and non-humans on each other and through the ongoing negotiations that take place in organizations. One of the key strengths is the reciprocal influence of technology on humans and humans on technology and allows people to consider how to undertake what they are doing in alternate or improved ways (Miles, 2012).

Other options for theoretical underpinnings were available but were not considered to have the breadth of scope in terms of consideration of human and non-human actors operating in a relational manner, agency, or identity construction through network development. Alternative theories included, Diffusion of Innovations (Rogers, 2003) which looks specifically at technology adoption mainly from the perspective of the technology and side-lines social aspects to the context (non-human elements) (Tattnal, 2011).

Sensemaking theory (Weick, 1995) was considered because it shows how people in organizations interpret and make sense of what is happening to them. The core of Sensemaking theory is how members of organizations understand, interpret, and make sense of their environment. The process makes use of three components, cues, frames and cues and frames. These three components help people to make sense of what has happened in the past (frames), the current situation (cues) and when combined as the cue in the frame, sense can be made of the situation (Miles, 2012, p.242). Sensemaking, concerns how people in organizational settings operate with each other using cues and frames to make sense of situations such as change programmes but there is no

consideration of non-human elements in terms of their active involvement in the process (Miles, 2012, p.242).

3.3.2 Actor-Network Theory Background

ANT developed during the 1980's and has its roots in many philosophical and research traditions. Typically the Sociology of Scientific Knowledge (SSK) is credited as the starting point of ANT and the philosophies of Michel Serres, Alfred North Whitehead and Michel Foucault (Michael, 2017). These philosophical traditions focus on performativity and on becoming rather than being. At the core of the development of ANT are three researchers, Bruno Latour, Michel Callon and John Law.

According to Law, (2009) ANT was conceptualized in Paris between 1978 and 1982 with the name created by Michel Callon around 1982. In 1980 Michel Callon wrote about the failure of the EDF engineering plan to create an electric car. Due to writing the text, Callon ushered in the question that remained at the heart of many ANT based investigations;

“how can we describe socially and materially heterogeneous systems in all their fragility and obduracy” (Callon, 1980a).

At the core of ANT is the exemplary case study the inspiration for which was Thomas Kuhn's 1962 publication *The Structure of Scientific Revolutions*. One key methodological dictum that was borrowed by ANT from Kuhn and the Sociology of Scientific Knowledge was the principle of symmetry.

In his 1979 book *Laboratory Life, The Construction of Scientific Facts* (Latour and Woolgar, 1986), Bruno Latour started to outline some of the vocabulary that would become central to ANT. For example, the focus on materiality, the productivity of practice, heterogeneous networks, inscription, the impact and influence of machines (non-humans) on life in the laboratory and how products of science come into being and the critical use of exemplary case studies based around the work of the laboratory. ANT is relational in terms of the interaction between actors and the heterogeneous networks that they are part of and composed of and the entanglement of networks that are continually being configured and reconfigured (Poell *et al.*, 2014).

As mentioned above Latour and Callon made use of the works of several philosophers especially Michel Serres from whom they borrowed the term Translation – another key ANT concept – where Translation refers to linking and changing items. In 1986 Michel Callon exemplified the use of the term Translation in his now seminal ANT case study, *‘Some elements of a sociology of translation: domestication of the scallops and the*

fishermen of St Brieuc Bay. In the paper Callon points to four moments of Translation Problematization, Intéressement, Enrolment and Mobilisation. These terms now lie at the heart of ANT (Callon, 1984). These terms will be explained in section 3.3.7.

Two of the central ANT concepts Problematization and Translation were first used by Callon in 1980 (Callon, 1980b). The term Problematization is used in the context of the Sociology of Scientific Knowledge, specifically to describe how the scientific community decides which problem to decide to address, fund and develop. Problematization is a process of positive selection whereby groups decide in a methodological way which option to select to be taken forward into action. The process is as much social as it is technical, proposals for development carry with them the views, biases and backgrounds of the actors involved as much as any purely technical aspects. The programme of action is therefore sociotechnical. Once a programme has been selected a process of Translation takes place whereby the interests of the actors are aligned, and previous activities are replaced or translated into the alternative programme.

ANT is primarily concerned with the discovery of social relations as they are constructed through the emergence of networks of association. ANT is relational in that it depends on the relations between the various components of a network to create effects, this is the first of the three underpinning philosophical assumptions of ANT (Ballantyne, 2010). The components of the network define and maintain the nature of the network or system in use. A network or a system will only be as durable as the strength of the associations within the network (Callon, 1986c).

The second assumption is that the relationships between the entities are described as an actor network. The entities composing an actor network are heterogeneous i.e. made up of human and non-human entities. The non-human entities can consist of any technical artefacts for example, computers, hotel keys, cat-flaps, web sites, mobile phones, antibiotics, papers, instructions etc.

The third philosophical assumption is that heterogeneous actor networks are formed over time through a process known as Translation. Translation is the process that leads to the durability of the actor network or depending on the circumstances can lead to the destabilization and possibly the failure of the actor network. Translation is the set of operations required to bring the components of the actor network together through debate, controversy, negotiation, contest and compulsion or calculation and even violence (Callon and Latour, 1981). To translate entities into a new actor network presupposes that an actor has the authority or assumes the authority to act and speak

on behalf of others whose interests are aligned. This 'focal actor' becomes the driving force and can lead the heterogeneous assemblage towards success or failure.

3.3.3 Critique of Actor-Network Theory

This section provides an overview of the main criticisms of ANT. ANT is often accused of not being a theory at all but rather of providing neutral thick descriptions of situations. As Bruno Latour (2007) states:

"I would define a good account as one that traces a network...a good ANT account is a narrative or a description or a proposition where all the actors do something and don't just sit there."

ANT terminology has been criticised for its lack of clarity and definition for example for the use of the word network which has a specific meaning in ANT different to the use of the term in say, a social network or technical networks such as electrical supply, water, gas, sewage or the internet (Latour, 2007, p129). In ANT, a network is:

"...any abstract assemblage of humans, organizations, and machines interacting in a systematic way". (Beagle, 2001).

Heeks (2013) provides four key criticisms of Actor-Network Theory centred around:

- Methodological concerns
 - Actor-Network Theory has historically been difficult for researchers to understand and put into practice. Many respected ANT-based research papers are the result of long-term ethnographic research. The difficulty with this is that not many researchers have the time or resources for such an undertaking. Another concern about methodology is the injunction to "follow the actor" (Latour, 2007), but as Heeks (2013) points out this can result in the introduction of subjectivity, bounding the project in terms of boundary and time. ANT is accused of allowing the worldview of the researcher to be imposed on the study. There is also the issue of human/non-human agency which is something that many find challenging. To counter these issues ANT, researchers need to work systematically and be aware of their own impact on the research.
- Analytical concerns
 - ANT has been accused of describing everything and not explaining anything (Heeks, 2013). A significant issue is that of defining the boundary of the research or whether there even should be a boundary. This issue links to ANT's flat ontology. To combat this criticism many

researchers have combined ANT with other theories so that there is the possibility of developing an explanation.

- Moral concerns
 - ANT has been accused of focusing on uneven distributions of power and how these can result in the domination of some networks over others but these criticisms have to some extent been denied by ANT practitioners by using the counter argument that networks form through associations and that as some authors have shown, the powerless can overpower the powerful through building networks and that the powerful have no actual power (Law, 1986), (Latour, 1984).
- Instrumental concerns
 - ANT has been accused of being merely a tool to understand the world and not to change it (Heeks, 2013) but as Heeks points out ANT can be used as a sensitising device that is able to uncover the importance of networks and associations. Heeks points out that ANT is a useful tool for determining who or what has or might have been excluded from a relationship or network and “*how networks might be developed that run counter to dominant hegemonies*” (Heeks, 2013).

ANT has also been accused of managerialism and of being apolitical through providing thick descriptions of events and situations rather than challenging existing political situations (Whittle, 2008).

3.3.4 Actor-Network Theory, Theory or Method?

Although ANT contains the word theory, ever since the early development there has been an ongoing debate as to whether ANT is a theory a method a process or a way of analysing the social effects of technology and science. According to Dolwick, (2009) ANT “*is not a theory per se*”. Theories are explanations of why something has happened. Whereas, ANT tends to lean more to describing why and how associations are made and how these are transformed (ibid). It has been stated on numerous occasions by many authors that ANT is not a theory.

There is considerable confusion on this point which is not helped by the writings of its founders. For example, Bruno Latour states,

“I will start by saying that there are four things that do not work with actor-network theory; the word actor, the word network, the word theory and the hyphen! Four nails in the coffin.” (Latour, 1999).

Latour is quite clear about whether ANT is or is not a theory,

“ANT is not a theory of the social, any more than it is a theory of the subject, or a theory of God, or a theory of nature. It is a theory of the space or fluids circulating in a non-modern situation.”

Here Latour is not stating that ANT is not a theory he clearly states that there is a theoretical component. Many authors have focused on the first part of Latour’s statement and seemingly ignored the second part but Latour himself counters the view that ANT is a-theoretical when he stated an opposite position that he took in the publication “On Recalling ANT” (1999). In his book *Reassembling the Social*, Latour (2007) states,

“...at the time I criticized all the elements of his horrendous expression, including the hyphen, I will now defend all of them, including the hyphen!”

Anne Marie Mol challenges the notion that ANT is a theory

“ANT is not a “theory”, or, if it is, then a “theory” does not necessarily offer a coherent framework, but may as well be an adaptable, open repository.” (Mol, 2010).

Mol also seems to counter her initial assertion that ANT is not a theory when she goes on to say:

“If ANT is a theory, then a theory helps to tell cases, draw contrasts, articulate silent layers, turn questions upside down, focus on the unexpected”.

Michel Callon reinforces the view that ANT is not a theory although he considers ANT to be successful in terms of its widespread adoption and the fact that ANT’s strength and adaptability stems from the fact that it is not a theory. Dolwick (2009) confirms the view that ANT is not a theory,

“...it is important to note that actor-network ‘theory’ is not necessarily a theory, per se.”

Instead Dolwick states that ANT is more of a way or method of describing how associations come into being and/or are transformed. It could be argued that although ANT is not necessarily a theory it does provide ways of understanding phenomena through the development of thick description which in turn leads the researcher and / or reader of the account to an explanation or a theory of the action – as Dolwick says ANT is best understood as a descriptive method. ANT does not attempt to explain why a network comes into being but how they come into being become durable or sustainable or breakdown.

According to Cresswell et al. (2010)

“The central idea of ANT is to investigate and theorise about how networks come into being, to trace what associations exist, how they move, how actors are enrolled into a network”. Theory aside, Latour’s advice for what a good ANT analysis consists of is as follows: “A good ANT account is a narrative or a description or a proposition where all the actors do something and don’t just sit there.”

3.3.5 Actor-Network Theory as a Method for investigating the Impact of Organizational and Technological Change on Team Identity

Over the past thirty years the focus of ANT has shifted from the domain of Science Studies to research into a wide range of research domains including information technology, forestry, marine archaeology, educational policy and architecture but has not been used as a tool, method or theory to investigate the domain of administrative support teams facing organizational change and the introduction of technology in the higher education sector. Due to the application of ANT in a range of fields including the higher education sector and its focus on identity as an effect of network associations it is seen as relevant to this study. Holstrom and Robey (2005) argue that ANT is a useful way of examining the diffusion of technology in terms of looking at how users affect the technology and how the technology affects and changes users. This is in opposition to the point of view offered by the Diffusion of Innovations theory which suggests that definable factors affect the decision to adopt or not to adopt. The implication is that there is no impact on the identity of the user whereas ANT strongly suggests that there is a strong link between heterogeneous elements.

3.3.6 Actor-Network Theory Core Principles

From its early beginnings ANT has been subject to change and controversy. Up to 1999 ANT’s originators focused on methodological approaches. Michael (2017) describes early ANT as ‘Classical’ which over time became formalised as a series of core tenets.

These are: **Generalised agnosticism**, the ANT analyst should be impartial towards all actors involved in a project under consideration whether they are human or non-human including examining those that are successful and unsuccessful and demonstrating how success came about (Michael, 1994). The analyst does not make judgements on any of the actors involved or comment on their views, technology or innovations. Where identities are being negotiated or are not fixed the analyst does not fix the actors

identities prior to the end of the process of negotiation. **Generalised symmetry**, the ANT analyst is required to carry out an analysis using a set of common analytic tools that allow for the use of a neutral terminology that helps to identify the roles that make up the network impartially and does not permit the favouring the human over the non-human (Michael, 2017) and the need to treat all participants equally. Both humans and non-humans are integrated into the same conceptual framework and accounted for equally (Wickramasinghe and Bali, 2011). The third principle is **Free association** where the analyst leaves all *a priori* distinctions between what might be considered natural and social actions, rejecting boundaries that might separate them. In addition, the analyst must consider the components of the network and the relationships between the entities. The analyst follows the actors so as to identify the nature of the relationships and how these combine or associate to form the network and “*explain their world*”. (Callon, 1984).

An overview of the Translation process central to ANT adapted from Rhodes (2009) is shown in Figure 9.

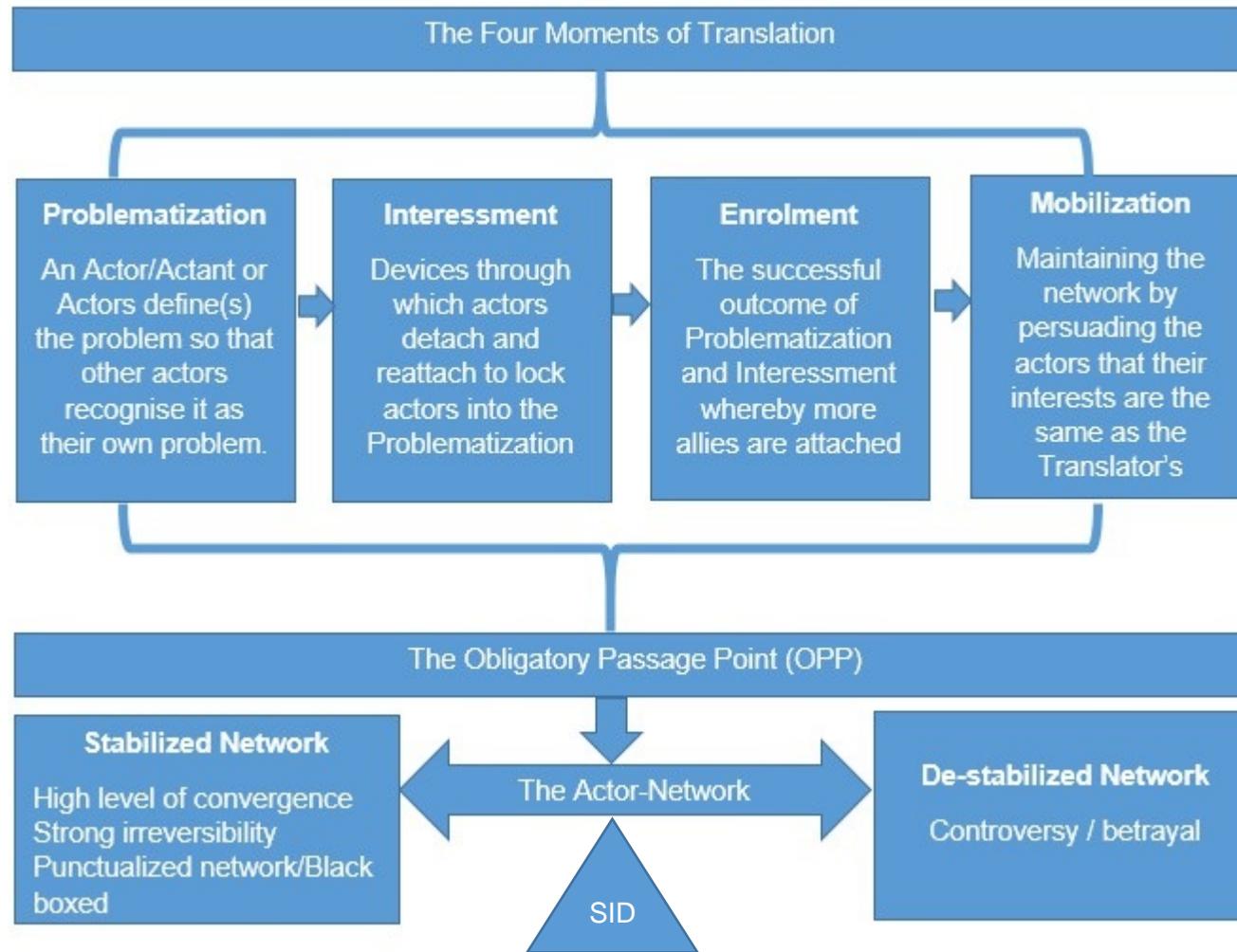


Figure 9 An overview of ANT adapted from Rhodes (2009)

3.3.7 Translation

The process of innovation diffusion is characterised by the innovation moving under its own inertia through an organization only stopping where there is purposeful objection on the part of human actors (Tatnall and Gilding, 1999). Diffusion operates at three levels, the initial force of the launch of the innovation, inertia and the medium that the innovation moves through.

ANT on the other hand does not accept that force or power is inherent in any human or non-human but is an effect of the size of the network that the components of an innovation are embroiled in. In ANT innovations have no inertial power and will only become adopted where actors are encouraged or enticed to find the innovation of interest (Tatnall and Gilding, 1999). The process of innovation adoption in ANT is known as Translation. The process of Translation is at the core of ANT and consists of four distinct phases. Translation has been compared to the Diffusion of Innovations theory whereas Diffusion of Innovations is a linear process ANT is recursive.

Translation is part of the vocabulary of ANT and is used in the description of a project or case. Translation is the process that leads to the stabilization of the actor network (Ballantyne, 2010) although the outcome can never be certain due to the possibility of resistance from either humans or non-human actors. As Callon (1984) states “*to Translate is to displace*” and to establish oneself as a spokesperson for others.

Translation is constructed of four concepts; **Problematization**, **Intéressement**, **Enrolment** and **Mobilization**. The concept of Translation considers power relationships and how existing heterogeneous networks can be disrupted and the interests of humans and non-humans re-aligned and formed into an alternative network. Translation is perhaps best known from Michel Callon’s 1986 seminal text “*Some elements of a sociology of translation: domestication of the scallops and the fishermen of St Brieuc Bay*”. Translation is described by Callon as occurring in time and space and is composed of a series of overlapping ‘moments’. These moments of translation have been used by ANT researchers as a method of analysing case study data.

Problematization; generally, Callon (1986) describes Problematization in the following way;

“...a system of alliances, or associations, between entities, thereby defining the identity and what they ‘want’”.

The key person, manager (Lowe, 2001) or focal actor (Gunawong, 2010) seeks to become indispensable in a particular circumstance by defining the nature of a problem and attempting to persuade or motivate actors to join them in a network. Persuasion

includes defining both the actors and their identities as there should be within the network. Through the definition of the actors and their identities the focal actor aims to become an 'obligatory passage point' (OPP) or point where others realise that their best interests are with the new network and break ties with any other that they might be an actor in (Callon, 1986a). The aim of the OPP is to provide a focus for the relevant actors so as to convince them that their interests will be satisfied (Sarker *et al.*, 2006).

Callon (1986) defines Intéressement as:

"...the group of actions by which an entity attempts to impose and stabilize the identity of the other actors it defines through its Problematization."

The aim of Intéressement is to interest relevant actors in the Problematization at the expense of other competing actor-networks that are also attempting to define actors' identities. Intéressement acts to cut the ties between other groups and entities and begins to shape and consolidate social links. According to Bourne and Walker, (2008) Intéressement leads to the negotiations and testing of the claims of the Problematization. Enrolment; according to Sarker *et al.*, (2006);

"... involves a definition of roles of each of the actors in the newly created actor-network, such that the defined roles are aligned to the interest of the network."

According to Callon, Enrolment is a term used to represent the strategies that are put in place by the focal actor that define and interrelate any relevant roles that have been allocated to other actors. During the period of Enrolment there is always a risk that the process will be hijacked by alternative plans or networks or other more powerful forces. Negotiations can occur between humans and humans, humans and non-humans (via a spokesperson) and non-humans and non-humans (via a spokesperson). Enrolment is seen as a set of multi-lateral negotiations between the focal actor and other actors and resistance can occur at any stage. Callon, suggests that actors can be enrolled through a range of means including:

"...physical violence, seduction, transaction [and] consent without discussion"

(Callon, 1984).

Mobilization, is the final stage of the Translation process and consists of a series of strategies or methods that ensure that those who are acting on behalf of actors in the network stay within the scope of the agreed plan or project and do not disrupt, undermine or betray the interests of the focal actor. The focal actor (or actors) technically becomes the spokesperson for other actors in the actor-network, the spokespersons

“...translate the interests, roles and relations of the entire network – becoming powerful macro-actors.”

(Bourne and Walker, 2008).

A network is said to have been successfully formed when interests have been aligned and put into place through Enrolment. When actors have been mobilized into alliances the network will have achieved stability. According to Shim & Shin (2015) and Callon (1986) stability or durability implies that the actor-network has become institutionalised and is no longer considered contentious, Even though an actor-network might have become durable or stable, durability is a fragile state that needs constant attention in order to prevent the actor-network from being undermined or reverting back to controversy. ANT describes the state of constant attention in terms of performing the actor-network into existence (Ballantyne, 2010).

Overall the process of Translation should lead to building of alliances and agreements but according to Callon (1986):

“... this consensus and the alliances which it implies can be contested at any moment. Translation becomes treason.”

3.3.8 Agency of Humans and Non-Humans

One of the defining aspects of ANT is its ontological position regarding the agency of humans and non-humans. The position taken by the Western philosophical and modern scientific tradition places humans above all other beings including nature, the natural world, artefacts and technologies (Baxter and Sommerville, 2011). Western philosophical scientific thought has been heavily influenced by the works of Descartes particularly his Discourse on Method (1639) and Meditations on the First Philosophy (1641). Descartes views on the bifurcation between humans and non-humans was reinforced by Kant with his epistemological principals coming to be known as ‘Modern’ i.e. the philosophy of subjectivism – a perspective that always includes the separation between subject and object (Baxter and Sommerville, 2011). Although this Modern epistemology has led to many scientific and technological advances there is an increasing view that the dependency on these principles has led to the destruction of many environments and the perspective that the natural world and all this encompasses is an external resource that is only there for human exploitation. Baxter and Sommerville (p.8), illustrate this perspective thus:

“These “others” have tended to be overrun and exploited as mere resources whether they are humans, “natural objects”, or other entities. The anthropocentric world- view fostered by “modernity”

places humans centre stage and tends to marginalise and exclude non-human entities, or at best treat them as mere props on the set of a human drama.”

ANT has adopted an alternative epistemological position that does not favour any entity over any other. For example, humans and non-humans are always intertwined or entangled within complex heterogeneous networks that vary in size and therefore influence (or power) and exist in a state of stability or impending instability. This position has been described as the seamless web by Baxter and Sommerville (p.9). Johnson, (1988) confirms the difficulty that ‘Modern’ sociologists have in analysing anything other than human subjects and makes the case for;

“...the reinsertion of non-humans into the mainstream of sociology”.

For a definition of non-human Sayes (2014) has analysed a wide range of ANT sources and suggests the following:

“The term (non-human) is used to denote entities as diverse as, natural phenomena, tools and technical arti- facts, materials, transportation, texts, and economic goods. What is excluded from the circumference of the term are humans, entities that are entirely symbolic in nature, entities that are supernatural, and entities that exist at such a scale that they are literally composed of humans and non-humans.”

ANT takes the position that both humans and non-humans have agency within the network of associations. This does not imply that non-humans are sentient or can make independent decisions. This agency is an effect of the relations within the network where actions of entities impact on other entities within the network. Shiga (2007) conceptualizes the agency of non-humans as an effect of their distribution rather than a fixed property of “*certain entities*”.

For ANT agency is a relational ontology where the term agency is understood as;

“...a hybrid accomplishment achieved through relationships between Actants of any ontological status” (Wilhoit and Kisselburgh, 2017). The implication of this is that “agency is always shared and/or distributed among a variety of agents with a variety of ontologies”.

(Cooren *et al.*, 2012).

Agency is not an integral component common only to humans but arises from the interaction between humans and non-humans together in relational networks and these networks are the means by which entities are constructed (Cooren, 2006). Agency is synonymous with action, work, organization, groups, activity and society. For Cooren (2004) and Wilhoit and Kisselburgh (2017), the definition of agency is:

“...the ability to ‘make a difference’, while action is the ‘transformations’ brought about by agency.”

According to Wilhoit and Kisselburgh (2017), agency needs to be understood as having three components: everything has agency, agency is relational and intention is de-centred. Everything has agency: ANT states that humans and non-humans participate in transformations (action) which has led to the use of the term Actant rather than actor where an Actant is any entity (human or non-human) in a heterogeneous network of associations. In this way, human actors are not privileged over non-humans. Therefore, collectives of entities have equal status or weight in relationships so within an organization, computers, texts, paper, printers, pens and pencils are all able to exert agency (ibid).

Agency is relational: agency is what emerges from relationships and is never restricted to one actor. An actor is *‘what is made to act by many others’* (Latour, 2007). Action emerges from Actor-Networks and the concern of ANT is for *‘networks as actors’* rather than actors as entities in networks. Epistemologically, ANT is concerned with

“...tracing associations to see what emerges from these connections”.
(ibid).

Intention is de-centred: the view of agency presented here de-centres human beings as the only entity that is capable of intention and agency. In ANT agency is a result of networks and associations and human intention is influenced and shaped by non-humans. For this project, the agency of texts is of primary importance especially regarding the use of the Student Information Desk (SID) system. For SID, human speech and intention is converted to text which is delivered to a human via a computer interface and the text is translated by a human into actions and interactions and then fed back to the student once again via the SID system. In this way agency is translated by text into action and this contributes to the process of organizing and organization. In this way SID is a performative organizational process (Cooren, 2004).

The agency of texts in organizations contribute over time to the stability of systems, processes and the overall organization (ibid). Making and using texts generate specific behaviours in organizations. Texts are enacted by people in organizations through instructions, requests and checklists, they structure how people communicate with each other and regularize procedures. Texts can pre-organize staff through systems such as SID where instructions specify actions (ibid). The key point is that for action to take place, there needs to be a combination of human and non-human Actants operating within a relational network. Regarding the hybridization of human and non-human

agency provides humans with the possibility of doing something that they would not otherwise have been able to do (ibid). As Cooren (2004) states;

“...they [humans and non-humans] exchange properties with each other – knowledge of this hybrid relationship helps us understand the role that texts play in structuring organizational settings”.

Within ANT agency is defined as either Distributive Agency or Attributive Agency. In a response to criticism of the agency of non-humans Callon & Latour, (1992) respond by suggesting that society is held together in a durable state only through the entanglement of humans and technologies (or non-humans). As Michael (2017) points out Distributive Agency can be considered performative for example a manager can only carry out their job if they have access to a telephone, computer, software and other equipment. The role of a manager is ‘performed’ into action through the interaction of humans and non-humans that operate within the actor-network. Michael (p.69) states;

“...the agency of non-humans enables the agency of humans which enables the agency of non-humans”.

Distributive Agency is agency that relies on relations that exist within time and space. Attributive Agency is agency that is ‘ascribed’ to entities that exist within a network or are being translated into a network.

The agency of non-humans is aptly illustrated by Kerr (2014) in her study of the training of gymnasts and the influence that gymnastic equipment has on the performance of gymnasts. Nespore (2011) and Fenwick & Edwards (2011) both highlight the agency of educational equipment or devices on the development of policy and change in an educational setting. Bruno Latour illustrates the agency of non-humans through his discussion on guns

“You are different with a gun in hand; the gun is different with you holding it. You are another subject because you hold the gun; the gun is another object because it has entered in to a relationship with you.”

(Latour, 1994).

Latour’s statement leads into the next section on intermediaries and mediators.

3.3.9 Intermediaries and Mediators

ANT is concerned with performativity and action. Action in ANT is ascribed to two main sources – intermediaries and mediators. In an ANT analysis actors are concerned with the transformation of a thing into something else (Pollack, et al, 2013). Intermediaries are likely to be stable entities those that have become Punctualized or ‘Black boxed’ (Cressman, 1991) where inputs and outputs tend to be known and relatively uncontentious. Punctualization is the process whereby complex Actor-Networks are converted into a single point or node in another network (Callon, 1991). In this way, an individual can be defined as a network in the same way that an association of entities can be defined as a network.

Intermediaries are things or entities or artefacts that pass from one actor to another but their passivity means that they do not influence, initiate or cause change, therefore they do not translate artefacts into other forms (Heeks, 2013). Intermediaries are components of an assemblage or network and Kerr (2014) illustrates this concept through the network of the racing cyclist where the network is composed of the cyclist, the cyclists specialist clothes, and helmet the cycle and its components and the road or track. According to Kerr if the cyclist travels at the expected rate then the components of the cyclist’s network are operating as intermediaries and are therefore predictable and uncontentious. All the components of the network are acting as expected. According to Latour the definition of an intermediary is

“...what transports force without transformation: defining its inputs is enough to define its outputs.”

(Latour, 2007).

An example provided by Latour is that of a properly functioning computer that acts as a complex intermediary.

Closely related to intermediaries are mediators. Intermediaries can become mediators and visa-versa. The definition of a mediator provided by Latour is

“...mediators transform, translate, distort and modify the meaning or elements they are supposed to carry.”

An ANT analysis is concerned with determining whether actors are acting as intermediaries or mediators. Mediators come in many guises for example Latour points out that;

“...fishermen, oceanographers, satellites, and scallops might have some relations with one another, relations of such a sort that they make others do unexpected things...”

This is the definition of a mediator. This research project is concerned with the identification of mediators throughout the actor-network in question.

The significant issues relating to ANT and the project relate to non-humans and their relationship with humans and other non-humans. Non-humans set within an actor-network could be considered as artefacts that merely carry out what they have been designed to do (as intermediaries) but due to the complexity of most networks or associations, non-humans often act as mediators by acting in unexpected ways, influencing other actors composing the actor-network and modifying the behaviour of the actors that they sit between. (Sayes, 2014). Latour (2007, p.71) makes the significant point, *“Is there some trial that allows someone to detect this difference?”*

3.3.10 Inscription, Inscription Devices and Immutable Mobiles

This thesis is concerned with tracing changes to team identity because of proposed changes to organizational structures and the implementation of new communications technology – the Student Information Desk (SID). Prior to the introduction of the SID system. Faculty support staff would have personal contact with students. The SID system moved the interaction from being face-to-face to an online text-based system. The SID system operates to a set of pre-established rules (or operating procedures) that dictate its use by staff and students – in ANT these rules are known as Inscriptions. The SID system also constrains to a certain degree the operational use of the system by students. SID allows students to post a ‘ticket’ (inscription) that is directed to a staff member for action. The SID system becomes what is known as an inscription device.

Inscription is one of the core ANT concepts and is featured in Latour & Woolgar's, 1986 pre-ANT publication *Laboratory Life, The Construction of Scientific Facts*.

Holstrom and Robey (2005) introduce the concept of the Negotiation Loop as seen in Figure 10, to describe the process of social/organizational and technological stabilization. A key element of the Negotiation Loop is the process of combining non-human (technology, inscription) with human agency operating together in an attempt to achieve stabilization.

The Negotiation Loop starts with the identification of an issue by actors. The issue is converted into a problem, the actors then propose solutions, and this completes the

Problematization phase of the Actor-Network. The actor group then validates the solution which is either excluded or accepted. If accepted the solution contributes to the Stabilization of the Actor-Network. Validation and Stabilization relate to Enrolment and Mobilization. Stability relates to both the social / organizational state and the technological state. During the process of constructing an actor-network a series of Negotiation Loops will be formed often because of decisions taken as part of the initial loop. As the number of loops increases the challenge for the Focal Actor is to ensure that the final stabilized outcome conforms as closely to the initial proposed solution and to build the required heterogeneous network of associations as the process progresses. The risk is that at the validation stage the process can either fall apart or diverge from the initial proposal or be subsumed into an alternative network. The negotiation loop can be instances of performativity and inscription.

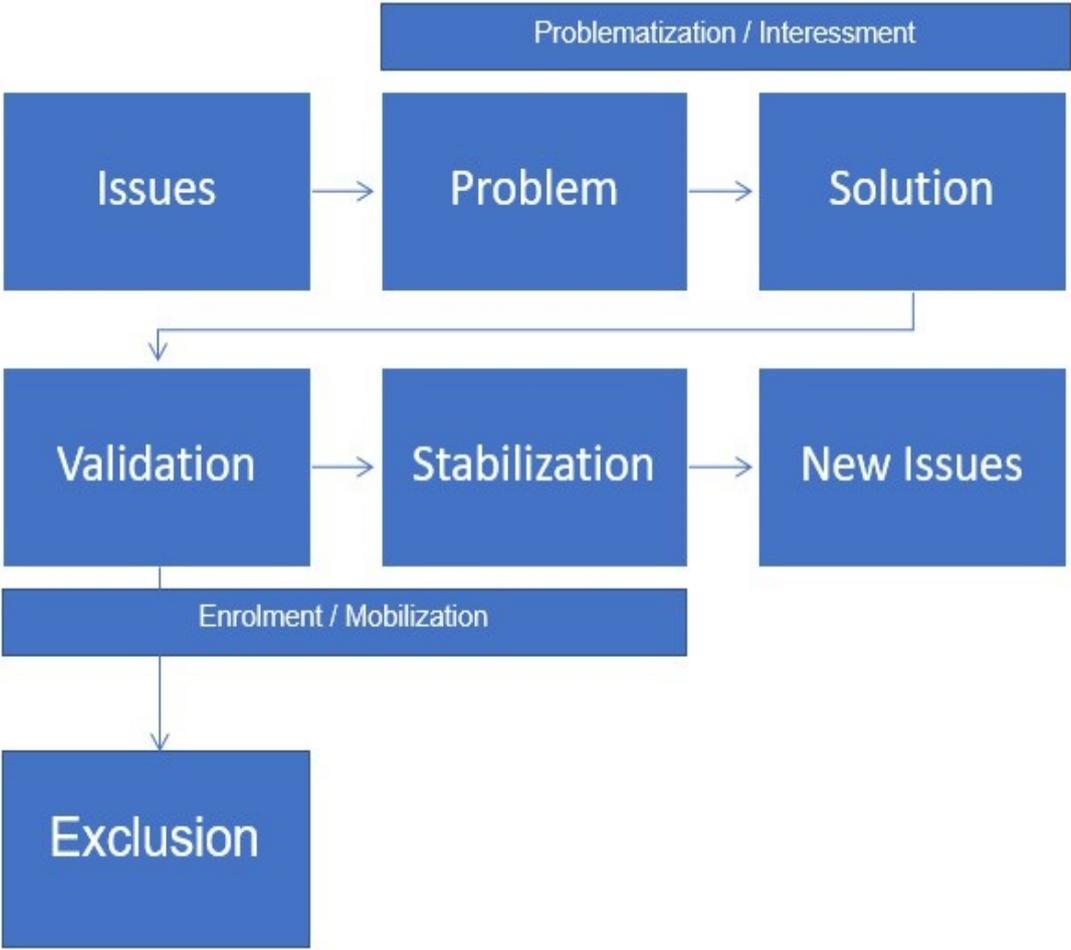


Figure 10 The Negotiation Loop adapted from Holstrom and Robey (2005)

3.3.11 Inscription Devices, Communication and Organizational Change

A significant aspect of organizational change and the introduction of technology into a team environment is what can be described as inscription devices. Holstrom and Robey (2005) have identified Information Technology and organizational change as an area that has been investigated since the 1950's but due to the increasing complication of these changes more work is needed to better understand whether there are causal relationships between IT and organizational change or whether these are mutually implicated. For this study, the importance of using ANT as a lens is critical in attempting to answer the research question relating to imposition of identity and stabilization of new structures.

The service desk as described in the literature review is a form of inscription device where a customer – or student, will inscribe through typing text a message that requires a response from a staff member. The literature describes the use of the service desk in an IT support and library setting but there is a significant gap in terms of literature relating to the use of these technologies in a Faculty setting. There is also a significant gap in the literature relating to the introduction of service desk technologies and how their introduction is managed, the impact on team identity, resistance and adoption. The service desk effectively translates thoughts and spoken words into text which is again translated into actions on receipt of the message.

3.3.12 Micro and Macro Levels of Analysis

ANT subscribes to what has been described as a flat ontology. The flattening out of relations is a core ANT concept and is used as a means of accounting for difference in scale between entities, for example micro/macro, local/global, individual / nation state and group / institution. The ANT analyst investigates all the Actors or Actants that constitute a network of association equally. All Actants – human or non-human in a network are given equal standing in the network no matter what scale they are perceived to be. Actants viewed at a micro level e.g. individual people in the organizational setting are also components of macro associations for example, members of workgroups, teams, departments etc. Organizational and sociological analysis has historically focused on macro scale entities (Latour, 1996).

An ANT analysis on the other hand disregards size in favour of the scale of the association. All networks operate at the micro level and the influence and power of any network is related to the overall length of connection of the network (Latour, 1996). In ANT, the analyst examines the associations or relations between local actors (Ballantyne, 2010) and traces the connections throughout the heterogeneous network. For the ANT there is no assumption that size, influence and power are innate to networks these are the effects performed by actors and not a permanent condition of the network (Cressman, 1991).

3.3.13 Socio-Technical Systems

For this thesis, the concept of Translation is used as an alternative to the previously discussed organizational change theories. The main difference between the standard theories of change and ANT is the recognition in ANT that non-human components of a network should be given equal consideration in terms of the development of social-technical systems.

The history and theory of organization change is replete with models that have been used over the past sixty or seventy years as methods for reducing the complexity of the change process and to assist organizations with planning and making sense of the impact of changes.

3.4 Organizational and Team Identity

Identity has been an enduring subject of organizational research for the past 20 years (Gioia *et al.*, 2013). As Gioia *et al* (*ibid*) states;

“If there is any concept that is essential to any member of society, it is the concept of identity”.

This chapter looks at several related theoretical perspectives on identity including the social-psychological perspective/overview of identity construction specifically Social Identity Theory (SIT). Social Identity Theory and Self Categorisation Theory were developed in the early 1970's by Henry Tajfel and John Turner. Social Identity Theory rests on the assumption that the way that people process, make predictable and make sense of the world around them is through categorization. The categorization process can include and operate on objects, people and people themselves. Through categorization individuals can differentiate between groups that they identify with and others and this has led to the concept of the in-group and out-group and related issues of stereotyping of others.

The inclusion of the self in the process of categorization and group membership is important as it leads to the creation of social attraction whereby individuals orient themselves toward the same group (Hogg and Abrams, 1988). According to Social Identity Theory the group is a psychological entity, actions of individuals are able to find meaning and belonging within the group that they identify with and actions are coordinated by the influence of the common identity of the group. One important aspect of group membership is the use of language and how and with whom the group communicates with and which other groups the group aspires to belong to and which other groups the group distances itself from (ibid).

Social constructionism is where views of identity are jointly constructed with a shared assumption of the meaning of identity. For social constructionism, the use of language through narrative and dialogue is highly important (Shotter and Gergen, 1992). For this study, social psychological and social constructionism have been ruled out as methods for investigating the impact of organizational and technological change due to their lack of consideration for the agency of non-human entities.

ANT on the other hand is appropriate for this study due to its ability to cross and include the bifurcation of human/non-human actors or entities (Michael, 1996). ANT takes a non-constructionist and non-psychological view and instead takes a performative or action oriented (enacted) perspective whereby actors and networks come into being and hence result in reality through being performed, practiced or enacted (Eidenskog, 2017).

ANT takes account of identity as an effect of the formation of networks through the consideration of heterogeneous Actants that come together and where a primary actor or Translator set themselves up as the spokesperson on behalf of others and where others accept the Translator as their spokesperson. Through this process, the Translator can impose through Enrolment an identity on other Actants. Actants who have passed through the Obligatory Point of Passage and become enrolled into the network are likely to become resilient and durable – at least for a period. It is necessary for the primary Actor enrol all the domains needed to construct and make durable a network. For example, Michel Callon in his seminal text about the scallops of St Brieuc Bay (Callon, 1986b), three domains needed to be brought together – scallops, fishermen and scientists – in order to create the desired network. As part of the network building, identities needed to be attributed to the different domains. In Callon's paper, the identities attributed to the Actants the identities were ultimately subverted when the fishermen decided to overfish the bay (Michael, 1996).

For this study identity is focused on at the intra-organizational or team level rather than at the individual or macro-organizational level. Outside of the field of team sports there is very little mention in the literature of the development of organizational team identity, how teams differentiate themselves from other teams – what is unique or distinctive about us? What are the central defining characteristics of our team? How has our team's identity been maintained over time? Teams, workgroups and other internal organizational entities are also macro-entities that tend over time are perceived by members to develop their own distinctive identities and it is likely that these entities are subject to the same features and characteristics as those found at the organizational level.

Over the past fifteen to twenty years the study of identity has been a focus of research at the micro or individual and the macro or organizational level. Research into identity at the organizational level has emerged as domain of interest in organizational studies.

Interest in identity in the organizational context was primarily initiated by Henry Tajfel with the publication of his seminal *Social Identity, Social Categorization and Social Comparison in Intergroup Behaviour*, 1972. Tajfel was a social psychologist and the paper took a psychological perspective of identity and group formation. The publication outlined Tajfel's Social Identity Theory which has become central to views on how groups form and how conflict and intergroup differences between groups arise (Tajfel, 1978). Social Identity Theory is based on a set of three distinct activities that individuals undertake to make sense of themselves and others. First, Categorization where people order others into categories based on race, team etc. people also categorize themselves and behaviours are based on the norms of groups. Second, Social Identification, where individuals adopt the identity of the group to which they belong to and third, Social Comparison, where individuals in a group will compare their group with to others. According to Tajfel, Social Identification can lead to competition and hostility between groups (McLeod, 2008). The research carried out by Tajfel and his graduate student John Turner led to the popularisation of the terms In-group and Out-group.

In 1982 John Turner developed an extension of Social Identity Theory, Self-Categorization Theory. Self-Categorization Theory developed the concept of group prototypes – interchangeable exemplars – or the traits that group members subjectively consider constitute the defining attributes of the group that they belong to (Hornsey, 2008). Self-Categorization Theory led to research into intra-group relationships rather than intergroup relationships as with Social Interaction Theory. Using the concept of prototypes Self Categorization Theory could answer the question how does a teams'

identity remain stable over time even though membership will change over time? People joining the team would only 'fit' if they adhered to the prototype (Hornsey, 2008). In a similar way to Turner, Albert and Whetten (1985) found suggested that a significant trait of organizational identity is temporality – or the existence of the organization over time. It is clear from the literature that the concept of identity is important for people in the workplace and includes issues of how individuals perceive themselves, their work colleagues, their team or work group, other teams and work groups and the organization as an overarching entity. The clear point is that teams and workgroups and organizations are fragile constructions that people attempt to build into stable and durable entities, but these can be destabilised through changes in strategy, the introduction of new staff and the introduction of technology into a work situation.

Gioia (2008, p63), states;

“The idea of identity simply resonates. It resonates with people in organizations and it resonates with those of us who study organizations. It resonates because it constitutes the most meaningful most intriguing, most relevant concept we deal with in both our personal and organizational lives.”

Gioia et al (ibid) make use of Albert & Whetten's (1985) definition of organizational identity:

“...those features of an organization that in the eyes of its members are central to the organization character or self-image, make the organization distinctive from other similar organizations and are viewed as having continuity over time.”

Elrod, P. David and Tippett (2002) point out that whenever there is an organizational or technological change the change will result in someone losing something and that loses can include breaking ties with colleagues, relocation, loss of expert knowledge due to new technology replacing old and loss of power bases due to restructuring. Changes such as these also impact the perception of individual and group identity. This is especially the case where teams are restructured and there are changes to staff, either by people leaving or new people joining. Changes to structure and identity can result in feelings of grief and loss as explained in chapter 3.2.1, page 67.

Henderson-Loney (1996) focuses on team building through the process of profound organizational change and identifies the potential for staff to resist change during periods of uncertainty and the need for groups coming together to assume a new identity. Individuals and teams need to let go of old norms and relationships and work together to rebuild the team as a new entity.

Albert & Whetten (1985) took a scientific analytical perspective of organizational identity, defining a series of characteristics that define the identity of an organization and three statements or tests that when satisfied are;

“...an adequate statement of organizational identity”.

The three statements are used to answer the question – what is organizational identity?

- The answer points to features that are somehow seen as the essence of the organization: *the criterion of claimed central character.*
- The answer points to features that distinguish the organization from others with which it is compared: *the criterion of claimed distinctiveness.*
- The answer points to features that exhibit some degree of sameness or continuity over time: *the criterion of claimed temporal continuity.*

One of the critical issues for teams and organizations is the question of whether and how the organizational identity impacts internal organizational entities such as teams, departments etc. especially during periods of change and whether and how changes affecting internal organizational entities affect the identity of the organization overall, (Albert & Whetten, 1985).

Identity is seen by Albert & Whetten (1985) as a fluid concept dependent on perspective and circumstances. Depending on the nature of the activities that an organization is engaged in for example, during acquisitions and mergers, a legal case concerning the organization or dealing with corporate tax issues will expose the organization to different stakeholders, levels of scrutiny, and perceptions regarding the nature of the organization. In the same way, intra-organizational entities can be perceived differently by different organizational stakeholders depending on the function, reputation (distinctive and temporal characteristics) and the perceived core functionality of the team (central characteristics).

For most scholars, the primary meaning of the term identity is;

“...a classification of the self that identifies the individual as recognisably different from others – and similar to other members of the same class”.

Albert and Whetten (1985).

At the organizational level, organizations will aim to develop a distinctive identity, but this is likely to be based on a range of elements encompassing culture, ideology, management philosophy among other things. Due to the complex nature of these elements, organizations can find it difficult to define their identity with precision.

Organizational and technological change are additional elements that an impact on the identity of an organization at the organizational and intra-organizational level. Albert and Whetten make an important point regarding individual identity where they state that a key characteristic of identity has historically been to distinguish;

“...man from machine (what is alive and what is not) and man from lower forms of animals”.

This is a significant defining characteristic of the nature of individual identity in terms of ANT. This issue will be covered in the next chapter.

Another important point made by Albert and Whetten is that organizations can have mono or dual identities or multiple identities where most organizations are hybrids composed of multiple types. The term hybrid is used in the context of an organization belonging to two or more types or two or more different types of organization – the use of the word hybrid in this instance does not denote an organization composed of a variety of components. An example of an organization with a hybrid identity is a cooperative bank. The bank is on one hand identified as a corporate entity but on the other hand it is identified as a community organization.

For ANT the use of the term hybrid has a different definition more akin to the association of human and non-human elements within networks that make up organizations and organizational entities.

Temporality in relation to identity is essential and is strongly related to concerns about individual resilience and health especially when continuity over time is broken and identity becomes threatened. Identity and continuity are important factors in terms of organizational change and these factors have been associated with the change and how difficult this can be to implement (Erikson, 1968). Identity is threatened by organizational change and individuals and teams subjected to change can exhibit characteristics of loss, mourning and grief (Albert and Whetten, 1985).

Gioia et al. (2013) use Albert and Whetten's (1985) three 'pillars' of identity; central, enduring and distinctive and state that they can concern different levels of focus, the individual, the organization and the nation. Identity as per Gioia et al (ibid) is a concept that can help to make sense of and explain action.

Ravasi & van Rekom (2003) propose five fundamental issues relating to identity and identification that can be used for theory construction and empirical research. These are as follows:

- **Theoretical background:** the intellectual resources that can be drawn upon.

- **Level of analysis:** studying identity at the micro or macro level e.g. individual, group, organization, industry or wider society, industry, society). What are the differences and commonalities across these levels? Can models and methods developed at one level be applied to other levels?
- **Conceptualization:** the fundamental issues to be addressed.
- **Methodology:** the tools, techniques, data gathering techniques and validity checks as they relate to organizational identity and identity research.
- **Relevance:** possible areas that identity work can help to solve, the added value of using organizational identity as an interpretive frame. How can the concept of organizational identity help us to promote or manage change in organizations?

These points will be addressed throughout this thesis.

Ravasi & van Rekom highlight the question “*how can the concept of organizational identity help to promote or manage change in organizations?*” This point is relevant to this study.

The concept of identity in organizational research is important as a way of understanding how individuals “*perceive and categorize themselves as members of a group*” (Ravasi and van Rekom, 2003).

The concepts outlined by Ravasi & Rekom are highly pertinent to this study in terms of the focus of this study relating to the impact of organizational and technological change on team identity.

3.4.1 Identity Change

The review of the literature revealed that research into organizations, teams and their identity tend to be carried out predominately at either the micro or macro level. There is a considerable amount of literature covering identity at the individual (micro) or the actual organization (macro) level. A considerable amount of research relating to identity in organizations relates to how organizations as macro entities develop and maintain their identity and how this affects and is affected by individuals and groups within the organization. There is a significant gap in the literature relating to team and group identity and how these entities are affected by organizational change and how identity is imposed, how they are sustained, destroyed and reconstituted and how technology being introduced into a team at the time of organizational change might complicate the concept of team identity formation or re-formation.

3.4.2 Actor-Network Theory and Organizational Identity

Following on from the discussion in section 3.4.1 on organizational identity, this section focuses on ANT and identity. The issue of identity construction in ANT varies significantly from how it is viewed in standard theoretical texts, especially those that are concerned with viewing identity from a psychological perspective. ANT takes as its starting point identity creation as an effect of networks and the entities associated with the network. Identity is an Actant (in a similar way that other non-human entities – ideas, papers, technology, messages etc. are Actants) that is fluid and subject to change often imposed by managers during periods of network building. This could be through the introduction of new technological entities into a network that cause changes to working practices or through the removal of team members because of the introduction of technology or teams that are disbanded, merged or created.

For this case study, the analytical frame is a part of the organization – teams of administrators – viewed as macro entities. Identity research has historically had as its focus at the individual (micro) level or the organizational (macro) level. Within an organization there exist internal macro level entities, teams, departments, schools, sections etc. These entities come into being through planned change, evolutionary change or through the creation of organizational routines (Feldman and Pentland, 2005) that leads to the development over time of a distinct team or group (macro organization). The shift from micro actors to macro actors is a core concern of ANT (Czarniawska and Hernes, 2005) and incorporates the issue of identity and how this is impacted by change and the introduction of technology.

Technology, organizations and humans are according to ANT participants mutually constituted with technical devices participating in the performance of social relations (Prout, 1996) that can result in the Punctualization of team identity.

ANT is relevant for this study because it allows for the reverse engineering of Punctualized networks through following the entities that have come together through mutual enrolment and where devices and humans are enrolled into a network and start to interact with each other in planned and unplanned ways – entities translated into networks of association configure and reconfigure each other in “*unpredictable and unexpected ways*” (Prout, 1996). ANT enables the tracing of the relations between entities and the processes occurring within the network.

For Mol (2002), identity is fluid and dependent on the perspective of other entities in the network. Mol uses the disease arteriosclerosis as an example of how people with the

disease are identified by different hospital staff, as patients, blood samples, and surgical subjects and how the disease itself is a separate entity in a network of the investigation and treatment of arteriosclerosis.

In a similar way teams in organizations have multiple identities depending on the relationships within the network and identities are constantly challenged, undermined, negotiated and betrayed (Michael, 1994). For managers in organizations change needs to result in stability and durability of teams, processes and systems. Michael (ibid) states that durability comes about through the “*main protagonist controlling the movement of materials, resources and information*”. The main protagonist can control the means of information distribution such as meetings and creating and maintaining contacts that reinforce the identities it has distributed and as such makes the actor-network more durable.

Michael (1994) uses the following syllogism to illustrate the process of identity imposition in ANT terms:

- *This is what you want to be: (Intéressement)*
- *We are the ones who can help you become that: (Translation)*
- *Grant your obedience by your own consent: (Enrolment)*

(Michael, 1994)

During organizational and technological change programmes persuasion is a key tactic of managers where they need to translate others into new ways of working and to accept new identities for durability to occur. The ultimate outcome of the Translation process is for the new network to become black-boxed or Punctualized once again, where the accumulations of the network become invisible and unproblematic. The internal components and identities of the new network need to be calibrated, organized, coordinated and aligned, thus rendering them invisible.

As outlined above for ANT identity is subject to the process of Translation as much as any other network entity whereby the identity of individuals, teams and other entities can be configured and reconfigured through interaction with other entities again in unpredictable and unexpected ways. Through organizational and technological change organizations impose alternative identities on members of staff where identity is an entity of a network of association.

According to Michael (1996) the process of Translation is a process of identity imposition, identity building and on occasions identity betrayal and is dependent on persuasion, persuasion that is concerned with “*the strategic shaping of identity*. The

construction of identities is linked to the construction of macro entities in that both come into existence through building large networks of association that include heterogeneous elements, humans and non-humans.

The process of building networks is through Enrolment, a component of the process of Translation. Translation is a process whereby one entity attempts to persuade others to shift from one network of association to another and to bring stability and durability to the new network. The process of Intéressement is concerned with the entity attempting to give a particular role or identity to other entities (Michael, 1994).

3.5 Conclusion

Through the course of this literature review an understanding of the history of organizational change was gained, an understanding of the theoretical background of individual and group identity were developed through a review of the major theoretical positions, Social Identity Theory and Self Categorization Theory and Social Constructionism. ANT was introduced as a lens through which organizations and identity can be viewed, described and understood. The main ANT concepts were introduced including the three underpinning principles and the concept of Translation and its associated elements, Problematization, the Obligatory Passage Point, Intéressement, Enrolment and Mobilization. A critique of ANT was provided. The concept performativity was introduced in relation to enacting identity into being. The SID system was introduced and placed in historical context.

The knowledge gap relating to the impact of organizational change, the introduction of technology into a team setting and how the use of the technology impacts the teams' identity was selected as the basis of the research problem the impact of organizational and technological change on team identity through the lens of ANT.

Chapter 4 Collection of data

Chapter 4 provides a description of the process of data collection, the identification of the key actors involved with the case and descriptions of each of the key actors and their role in the organization and the change programme. The Student Information Desk (SID) system is introduced as a key actor alongside other actors involved with the introduction and implementation of the system. The process of the organizational change is described using a descriptive case study based on the chronology of events. The overarching organizational restructuring is introduced, and issues of technology adoption and associated team identity change and imposition of new identities are explored.

4.1 Introduction

This chapter provides the background to the case and the historical context. The case is described in detail.

This case study concerns the introduction and implementation of a service desk system the aim of which was to provide a communication platform linking students to staff and / or staff to staff. The system, the Student Information Desk or SID allows students to post a ticket with a query that is then routed to the appropriate staff member who then posts a resolution back to the student. The rationale behind the system is to reduce the need for students to physically go to student administration offices, to have access to services 24/7 and to provide a range of self-service forms.

Concurrent to the introduction of the SID system was a proposal for the restructuring of the existing Faculty administration teams. The aim of the restructuring was to map the administration teams to the recently restructured academic departments. The change strategy was designed to map the Faculty administration teams to the department structure by breaking down the three long-standing teams and reformulating them into smaller department-based teams thereby removing a layer of management.

The two change projects had significant implications for the teams involved due to the need for three existing Faculty administration teams to adopt the new system that the project lead had to get up and running in a short space of time while at the same time a decision was made to drive through a restructuring in time for the start of the coming academic year.

The proposal for the restructuring would break down the existing teams and form them into new teams and the SID project would become a common cross team

communication medium. The SID project consisted of a mixture of human and non-human actors that relied on building of new heterogeneous networks of association and the need for the networks to become stabilized and adopted through the alignment of interests and the imposition of new team identities.

This chapter describes through the use of a case study how attempts were made to create new stabilized networks. The case study follows the ANT Translation process. The critical issue for both projects was the need for the Focal Actors to attempt to align the interests of the human and non-human actors for the stabilization to occur.

4.2 Identification of Actors and Role Definitions

The identification of actors is an important part of an ANT case study. In ANT actors work together in collaboration within and across actor-networks. Actors include humans and non-humans and are considered equal within the network. The key aspect of building actor-networks is the identification of the focal actor. The role of the focal actor is to bring all actors together so that they pass through the Obligatory Passage Point (OPP) with their varied interests aligned to deliver a collective institutional project.

Eight actors were identified, see table and case profiles developed as a way of supporting the narrative, the exploration of the actor's interests and the need to align these to the development of a new actor-network:

Actor	Role
Executive Board – Registrar	The Obligatory Passage Point, decision maker and project lead
Faculty Administrative Staff	Staff directly affected by the change programmes
HUB Project Manager	Project manager for the SID project
Students / Customers	SID end users
Registry Staff	Staff directly affected by the change programmes
The SID System	Intermediary / Mediator between students/ customers and Faculty & Registry staff
The Software Vendor	Supplier of the SID system
Information and Communication Technology Team	Advisors to the Registrar and responsible for the procurement and implementation of the SID system

Table 6 the Actors Identified in the Case

4.2.1 Reduction of Bias during Sample Selection

To reduce bias during sample selection a cross section of posts were selected. The selection was carried out in conjunction with an objective CI reference group whose role was to independently select subjects that represented the range of relevant roles. The reference group based their decisions on their professional experience and knowledge of the organization. The reference group role was to suggest several representative posts to interview. After each interview the interviewee was asked to recommend one or two other posts to interview. In the event of uncertainty around the appropriateness of any suggestion the recommendation was referred to the reference group.

4.2.2 Executive Board - Registrar

The goal of the Executive Board is to set the strategic direction of XXX University. Executive Board agreed the scope of the HUB project and approved funding including funding for a project manager post. The Project Manager provides reports progress on the student and virtual Hub projects to the Executive Board. The Executive Board has several key interests; to ensure financial stability, to ensure that student recruitment meets target, to ensure that curriculum quality is maintained and to ensure that the university campus and estate continue to meet funding body and student expectations. The perceived need for the student Hub grew out of these key interests and in many ways the key interests were to be inscribed into the design, development and implementation of the Hub and associated systems. The Registrar, a member of Executive Board, was given the responsibility for delivering the student and virtual Hubs. The Registrar, a member of Executive Board, was given the responsibility for delivering the student and virtual Hubs.

4.2.3 Faculty Administrative Staff

The Faculty administrative staff structure had been in place for around fifteen years prior to the idea for the student Hub and the subsequent restructuring. The administrative staff were in three Faculty based teams operating primarily in open plan offices. The teams in two of the Faculties had not been significantly changed for around ten years but one of the Faculties had carried out an internal restructure about five years prior to the implementation of the student Hub. Team structures were as follows:

Faculty #1 – One Faculty Administrator, two team leaders, nine staff posts.

Faculty #2 – One Faculty Administrator, two team leaders, nine staff posts.

Faculty 3# – One Faculty Manager, six Department Managers, and eighteen staff posts.

The Faculty administration staff were classified as employees of each Faculty and were line managed by the Dean of Faculty. The Faculty Administrators and Faculty Manager would meet regularly to coordinate activities. The administrative teams developed expertise across many XXX University systems and processes including the use of the student records database and related software and reporting systems and provided a range of services to students, academic staff, visiting scholars, internal Professional Services teams (Human Resources, Finance, Estates, Registry, etc.).

Faculty administrative staff were concerned to deliver services to students and staff and were interested in streamlining services. The student Hub was seen as a place that would remove the need for students to come to Faculty Offices and had the potential to provide development and career opportunities.

The Faculty Administrator for one of the three Faculties is the author of this thesis and was a key actor during the development and implementation of the SID system. The Faculty Administrator in each Faculty was classified as the SID queue manager and as such was responsible for ensuring that their staff were using the system on a daily basis and clearing the Faculty queue by responding to students.

The SID system had the capacity to monitor performance against a set of standards or service levels. The service levels could be set to periods of days for example, the period of time set from submission by a student to completion. For the initial implementation the service levels were set to arbitrary time periods because there was no pre-implementation discussion or subsequent agreement on timescales. A set of related performance reports was included in SID to be used by Faculty Administrators. Faculty staff performance could be monitored, and Faculty teams compared. The lack of agreed service levels and performance monitoring contributed to the lack of engagement with SID in some areas.

4.2.4 Hub Project Manager

The Hub project manager was a fixed term post agreed by Executive Board. The need for an external project manager was determined by the internal project team. The Hub project manager was appointed in June 2013 and was in post to March 2015. The project manager's role was to ensure that the project was delivered, met its deadline, budget, to organise training for staff on the virtual Hub system. The project manager would be responsible to the hub project Board.

4.2.5 Students / Customers

XXX University is a small institution that has a global reach. About 27% of the student body is from overseas. The university had pursued a policy of student growth to take advantage of the lifting of the cap in student numbers after the introduction of student fees. With the introduction of fees students began to behave more like consumers making increasing demands for improvements to services. The Student Union was very active as a partner in the development of plans for the student Hub and associated systems and processes. The Hub space was envisaged as a highly student focused space. With the introduction of fees students began to behave more like consumers making increasing demands for improvements to services. The Student Union was very active as a partner in the development of plans for the student Hub and associated systems and processes. The Hub space was envisaged as a highly student focused space.

4.2.6 Registry Staff

Staff working in the Registry were identified as the group that would constitute the core staff for the proposed student Hub and would also be the system owners of the SID system. Registry staff were subject to a restructuring proposal before staff in the Faculty Teams. The Registry staff remit covered exams, student finance, academic regulations and student services. There was a clear alignment between the work of the Registry team and the proposal for the Hub and the SID project.

4.2.7 The SID System

The SID system was envisaged as a virtual student Hub. The system was seen as a way for students to contact Registry and Faculty administration teams so that they would not need to attend in person thereby saving time and speeding up responses through being able to direct queries to specific teams and team members. There were differing perspectives on the implementation based on the team looking at the system. The IT support team saw it as a technological challenge and the Executive Board saw it from a financial and timing perspective. The system would become a key-actor in the teams and as part of the restructuring.

4.2.8 The Software Vendor

The software vendor would play a role working with the IT Team on the specification, costing and implementation of the SID system. The vendor would provide continuing

support for the system and would provide business analysis support when changes to the implemented system were proposed. The company's interest was in providing the system and the ongoing maintenance contract.

4.2.9 Information and Communication Technology Team

The Information and Communication Technology team was responsible for providing the initial project scope, identifying appropriate systems and identifying relevant suppliers. The ICT team was responsible for providing the chosen vendor with access to systems that the SID module would link to and to ensure that the SID system was managed by the vendor and to provide when necessary local expertise to assist the vendor. The main interest of the ICT team was to provide a fully featured system and to deliver an operational and successful project.

4.3 Alignment of Interests

The following section describes the interests of the following key actors, Faculty administration staff, Executive Board Registrar, Registry staff, IT Director and IT Manager and the SID system. The alignment of interests is based on the aims identified in Figure 21 and the responses from the CI and documents relating to the student Hub and SID system.

4.3.1 Executive Board, Registrar

The Registrar, a member of Executive Board led the development of the physical student Hub and the subsequent virtual hub, SID system. The Registrar's aim is to get the student Hub and virtual hub in place, on time and within budget but the main aim is to ensure that the objectives laid out for the physical and virtual hubs are met. The student Hub project had been in existence for a few years prior to the Registrar starting in post at XXX University and her role was to get the project operational. At the time, the Registrar was interviewed she had resigned and was in the last few weeks of employment. At this point in time the student Hub had been completed and the virtual Hub had been in use for about one year. The Registrar as a member of the Executive Board was responsible for putting in place methods for improving the student experience. The Executive Board and Registrar were responsible for setting the budget for the student and virtual Hub's and ensuring that funds were available for procurement. The Registrar was also responsible for delivering the projects within agreed timeframes and balancing cost and time.

According to the Registrar;

“I was very keen on this idea of in a sense having a virtual HUB before we had the real HUB, although I think we quickly decided that we would just focus on the tasks that were done currently by the Registry rather than beside it, because the vision in the longer term of the HUB is that it would take all the student facing tasks that are being done in the Faculty Offices or in the Registry team and put them all together in the HUB but we hadn’t really tackled that bit, so we decided to just focus on what tasks were being done in the Registry because obviously when we started, because what was going to go in people’s jobs if we started picking things up from the Faculty Offices but the vision was always that they would be brought together, and you know the idea that eventually you would need less front facing people and wouldn’t have front facing people in the Faculties and the HUB would deal with the whole thing, so we developed this idea of a virtual HUB that became SID.”

This statement implies the need for the subsequent restructuring of Faculty administrative teams. The Registrar states that the incoming replacement Registrar would be responsible for the staffing review and restructure.

The HUB and SID are identified as the means to bring together various entities of the institution and to create stronger working links between teams. In this way, the HUB and SID are Mediators, changing long standing operations that have been in existence up to the present time. In some ways, the HUB and SID systems have been designed to interrupt and betray the existing silo-based mentalities and operations. The Registrar was interviewed.

4.3.3 Registry Staff

The staff in the Registry were responsible for delivering direct student services. The team had been based at a building about 20 minutes' walk from the main campus which was inconvenient to students and staff. The Registry delivered a range of services including student finance and fees, exams, academic services, regulations and data input. The staff dealt with large numbers of student enquiries face-to-face and via email. In many cases services required students to complete paper forms which then needed to be processed and data input. The Registry staff interest was to deliver seamless services to students and staff, but the existing infrastructure meant that this was difficult to do. Comments from students and staff reinforced the view that having the Registry team at a distance was a significant cause of disruption and dissatisfaction. The student and virtual Hubs were planned to resolve these issues. A manager from the Registry was interviewed.

4.3.4 Director of IT Support and IT Support Manager

The Director of IT Support and the IT Support Managers were responsible for advising Executive Board on suitable service desk systems from a technological perspective, proposing potential suppliers, selection of appropriate suppliers and working with suppliers on the installation of a system. The Director of IT Support was responsible for drafting supporting documents relating to the procurement of the SID system, arranging visits to exemplar sites and for liaison with suppliers. The Director was responsible for ensuring that the preferred system was implemented by the IT Support Team through the management of the Manager of IT Support. The IT Manager would be responsible for ongoing maintenance of the SID system and for scoping out further developments determined through user feedback. The IT Support Director and the IT Support Manager were mainly concerned with acquiring the maximum amount of functionality from the proposed SID system. They provided a project scope that was assessed by Executive Board. There was a power play between the IT support Managers and Executive Board about the scope of the project and what was seen as the most important drivers. The tech team wanted to focus on the technical abilities of the application, but Executive Board / the Registrar was more interested in getting the application installed quickly but not its technical capabilities and then review it and maybe later on in the light of experience expand its capability.

The Executive Board became the Obligatory Point of Passage for the proposed actor-network. It was necessary for the IT Support team and the Registry team to pass through

the point where the system would become a key actor. The Director of IT Support and the IT Support Manager were both interviewed.

4.3.5 HUB Project Manager

The HUB project manager was responsible for delivering the SID project and aligning the SID service with the services to be delivered from the physical student Hub that was in development and due to open in 2016. The SID system was to be launched prior to the opening of the physical Hub in a limited way for the system functionality to be tested and evaluated. The Hub Project Manager was responsible for arranging site visits to other institutions to see similar systems in situ, liaise with the Estates, IT and Faculty teams and organise training for users just prior to the implementation of the system.

4.3.6 Students

Students at XXX University had an interest in the improvement of administrative systems which were considered particularly poor. The University had a reputation for inefficient administrative services and poor student experience. These views were confirmed through feedback from the National Student Survey and internal questionnaires seeking to gather opinions on the performance of support services. Some comments from NSS surveys between 2011 and 2016 a sample of comments relating to administrative services includes:

- The only negative feedback I have regarding this course is the appalling state of course admin.
- The administration for my department. The two departments at the two schools don't communicate.
- Faculty office system, lack of IT resources and incomprehensible printing system.
- Abysmal administration, certain periods were attempts to get hold of faculty staff are impossible.
- Administration can be extremely disorganised and take a long time to process anything, for example transfers to other courses, marking, appeals for resubmission or even just informing us when exams will be exactly.
- Poor service from the school faculty office that was consistently ill organised.
- Poor administrative organisation.
- The administration at XXX University really let down the school as a whole when there is a problem regarding timetabling or in the faculty office it is very difficult

to get the necessary information. The admin staff can be obstructive in the way they approach issues and, far from supporting me in my time at XXX University, on occasion I have felt they have made things much harder.

- The administration at XXX University is a bit of a nightmare.
- Course administration can be an issue: I have encountered unhelpful administrators in a few instances.
- Terrible administration. Bad communication between departments.
- Improve the communication within the administration within the university.
- Improve in-house administration relations, for example, between the faculties and the registry.

The students' interest was for there to be improved administration, better connections between teams and better communication between teams.

4.3.7 Software Vendor

The interest of the SID vendor was to complete the tendering form and to win the contract to develop and install the system. The vendor was interested in the financial return to the company because of gaining the contract and the on-going annual service charge needed to ensure the maintenance and upgrading of the system. Additional requirements or changes to the original scope of the project would be charged at a consultancy rate. The vendor was also keen to gain the contract as a way of promoting its services to other institutions.

4.3.8 The SID System

The interest of the SID system was to provide a means of communication between students and administrative staff working across XXX University. The system needed to integrate with other existing systems such as the student records system, Active Directory, the Windows operating system and authentication systems. The aim of the system was to become stabilized into a black box – allowing seamless communication through the inscription of queries which would provide instructions to administrative staff. The SID system was interviewed through interaction, input and output of inscriptions.

Students access the SID system via a link on a web page on the university website. The SID interface includes two panes one on the left allows students to post a new ticket and, on the right, a list of self-help guides. An example of the SID user interface can be found on the following page.

The student types the query, can add an attachment, categorise the enquiry and then submit the enquiry. The enquiry is then submitted to the SID database and an email confirming the submission is automatically sent to the student. The email will contain the text in the query and a link to the query in the SID system so that the query's progress can be tracked. The query is listed in the SID system in the order submitted.

The SID queue screen lists all the enquiries and colour codes based on their status, active – green, amber – in-progress, red – beyond the service completion time or re-submitted by the student for further action.

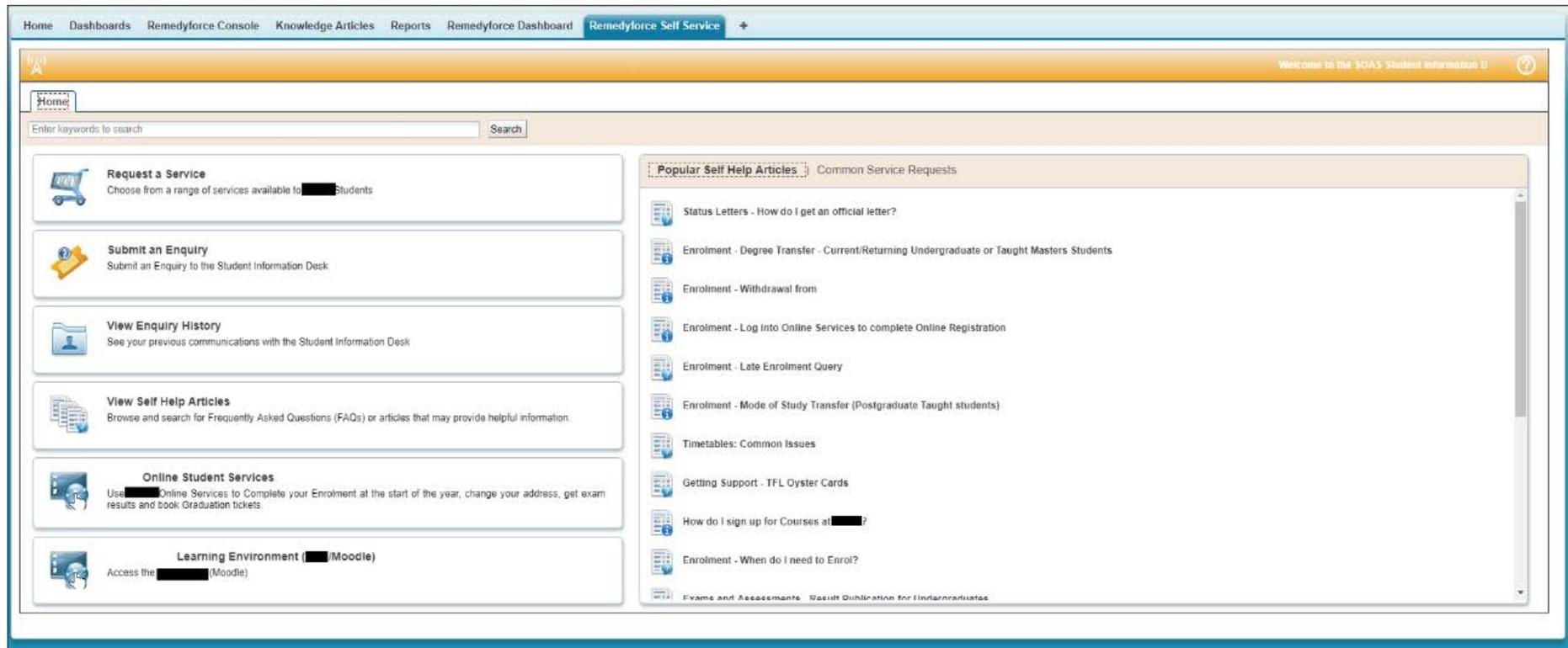


Figure 11 SID Interface

To submit an enquiry the student clicks the Submit an Enquiry button and is presented with the following screen:

Home Ticket: New

Submit

On Behalf of...

Describe your issue *
Enter a description of the issue

Choose a Category
Choose a Category

Add Attachments and Notes:

Attachments (0) File Choose file No file chosen Add Delete

Date & Time	File	Added By
-------------	------	----------

Submit

On Behalf of...

Figure 12 The SID Enquiry submission screen

4.3.9 Faculty Administration Staff

The interest of the Faculty administration staff in relation to the student Hub and the SID system related to uncertainty around the future of the role of the Faculty administration teams and how the Hub and SID systems might impact on these. The Faculty administration teams had been in existence for many years and had developed strong team identities and routines. The Hub was perceived as a potential threat in terms of the possibility of some posts being co-opted or transferred to work in the Hub location. The SID system was an unknown quantity in terms of the potential impact on roles, tasks and routine work. At the time of the Hub project and the discussions around SID the number of students visiting the Faculty offices had significantly dropped. This was due to the move from physical paper-based processes to online processes. These were mainly submission of coursework and exam papers and the move to Moodle for general information. SID was considered another system that would continue to reduce footfall in the Faculty offices. As one of the interviewees put said in relation to the changes brought in through the introduction of technology:

“When I first started there was a lot of emphasis on paper because we didn’t have SID obviously we had email. The desk was a lot more busy (Sic) when I started but it’s virtually redundant now. Eight years ago at the beginning and end of terms the desk was busy because of the request for paper, paper in the form of assignments. Paper in the form of course sign up. So technology has had a huge impact and I think it’s better. We are not paper pushers any more. Course sign up is online, submission of essays is online. It’s certainly reduced the mundane parts of our job. Because with paper you need to keep it in order. Certainly, with assignments you had to, because with assignments there were duplicates, there were triplicate forms that had to be kept in order. There’s less need to do that now.”

Generally, the introduction of technology is seen by the staff as a good thing but issues relating to the advantages of technologies has been mentioned by some staff for example:

“It is not possible to compare the past pre-technology period with the post-technology period. Staff in the team do complain about the need for all the technology systems including SID especially because SID is seen as removing the ability of team members to speak directly with students.”

The introduction of the student Hub and the SID system were innovations that contributed to changes over time to working practices. The following transcript excerpt reflects on how the introduction of technology has impinged on routines and ultimately the identity of individuals and teams.

“In the past a lot more was done mechanically using pieces of paper. The significant change recently has been the move from staff working at the back-end of computer systems to students taking control of their own data. This has impacted on the teams’ identity in a number of ways for example by reducing the visibility of students and changing the nature of the teams and the work that they do.”

4.4 SID Scoping and Vendor Selection

Prior to the procurement of the SID system the Director of IT Support and the IT Support Manager were tasked with drafting the scope of the system and identifying a vendor. From the beginning of the scoping of the project disagreements in the approach to the scope began to arise. The most significant of these revolved around how broad the scope should be. The IT team wanted a wide scope that included as many features as possible the IT team was aligned with this approach, but the Project Board and Executive Board preferred a narrower scope. Executive Board was less concerned with the breadth of technical functionality and more concerned with the speed of implementation.

According to the Director of IT support:

I think EB wanted, just get it done do something quick I think the thing that kept coming down was don’t do something huge now because you’ve never run a student information desk before, so something smaller learn some lessons and then when you’ve learnt them come back to us if you want to do more and we can do it in a more informed way rather than to do a massive project now.

The Director of IT Support was drawn into a negotiation loop concerned with the SID product.

The need to procure a support desk system that delivers a functional and usable system was identified as needed. The system emerged from a decision to implement a technological solution and then to pass on responsibility for the scoping and vendor selection to the IT team. The IT team were without specific requirements from Executive Board and therefore the focus was on the technical attributes of the system to the extent that implementation time and budget were not high priorities. The initial scope represented the interests of the IT team in terms of them selecting what they thought was the best product for the job and with the highest technical specification.

Time restrictions placed on the project by the procurement team impacted on the implementation, scale and cost of the project. The system specification was presented to Executive Board by the IT team. The specification was rejected due to proposals long

lead time and perceived complexity of the system and the cost of implementing the full specification. Concerns were also raised that implementing the full specification could result in a risk of system failing to be successfully implemented due to a lack of internal expertise. The validation of the solution proposed by the IT team resulted in the reconfiguration of the technical scope based on the use minimal technology and the shortest time to go-live.

To gather information on support desk systems implemented in similar environments the IT support team was instructed to identify reference sites that could be visited. Three sites were visited, and summary reports were produced and presented to the Project Board. The result of the visits was a decision to proceed and to issue a tender for the implementation. The service desk tendering programme was completed at the end of 2014 and a vendor recommendation made.

4.5 Implementation and Adoption, SID and the Student HUB

Once the procurement of the service desk had been completed it was necessary for the focus of the system to move from the ownership of the IT support team to the project manager who was responsible for the adoption and proper use of the system. The service desk system was given the name Student Information Desk or SID. The aim was for the system to be promoted to students under the strapline Ask SID. A presentation 'What is SID' was developed and shown to groups of relevant staff as a way of introducing them to the system.

4.5.1 SID: Persuading others to pass through the OPP and the Formation of Alliances

The HUB Project Manager took on the role of focal actor during this period and the main aim was to persuade others to become familiar with the system and to adopt it. The focal actor (HUB Project Manager) developed a strategy with Portfolio Board members. The strategy to gain support was to identify those actors who would need to be aligned with the network being formed to support the new system and using the presentation and other internal communications it was expected that it would be possible to negotiate new actor-identities and for interests to be aligned.

The focal actors' role was to translate the heterogeneous elements that were to make up the SID actor-network. For the alignment of interests to succeed the focal actor needs

to adopt specific approaches to the Translation depending on how close the parties are to the Problematization. Some will need “*seduction or simple solicitation*” or “*pure and simple force*” (Callon, 1986b). The goal of the focal actor is only achievable through there being adequate compatibility between the actors and the target actor-network. Where there is the focal actor will have succeeded in becoming the spokesperson of the entities. The translation process allows the focal actor to form an “actor-world” through the “*assignment of identities, interests, roles to play and courses of action to follow and projects to carry out*” (Callon, 1986b). The aim is for the focal actor to lead the actor-world to a state of stabilization. This state is achieved by the focal actor defining what the other actors desire to obtain and then “*demonstrates that the only way to achieve these goals is with the translators assistance*” (Horowitz, 2012, p808). In ANT, it is deemed necessary for manipulation to be adopted as a strategy for the forging of new alliances. The success or failure of an endeavour is then dependent on the skills and continuous effort of the focal actor otherwise the dynamics of other networks will interfere and potentially undermine the network in formation.

Teams were at different stages in terms of the realisation that there was a need to change the processes that they were using. The Registry team had been intimately involved with the student Hub planning, but the Faculty administration teams were on the periphery of the consultation process. When the SID system was being introduced the Faculty, teams felt that their interests were not being taken into consideration and the implementation process felt rushed with a perception that communication with the teams was poorly handled.

Registry staff became aligned with the SID system because it was implemented ahead of the opening of the physical HUB and was to be an integral part of the work flow in that area. In this way, the SID system and Registry staff became firmly aligned. Within the Registry team another focal actor emerged in the form of the Registry manager. The Registry manager took on the role of SID champion within the team and this allowed for a smoother passage through the OPP for that team. For staff in the Faculties the success of the SID project in translating their interests and changing identities was less successful.

According to Callon (1986b) networks are “*constantly being undone*” and this is a significant issue with regard the SID project. The actors interviewed for this research project revealed that when it came to the implementation of the SID system there was a perception that there was a lack of communication from the HUB Project Manager and that the project lacked leadership.

“There was no one leading on the development of the application or championing the system after the Project Manager and Registry Manager left the organization.”

This statement was common among the staff in the Faculties and led to what at best became across the teams a variable implementation of the SID system.

4.5.2 The Project Management Office as Centre of Calculation

A centre of calculation is an organizational unit where cycles of change originate, move out into the organization and cycle back again to be inscribed into rules, policies, plans, maps, designs, organization charts, forms and other resources (Latour, 1989). The ideas and plans for the student Hub and the SID system were controlled and documented by the Project Management Office (PMO). Through the PMO the projects started to become solidified and stabilized. New heterogeneous organizational entities come into existence through planning, the creation of entities and discourse (Cooren, 2015). The PMO fed the results of ongoing changes to the Executive Board for approval in the form of reports and other papers. Approvals were confirmed in the minutes of meetings and project progress was notified to the university community through web-based news updates and email communications. The Faculty and Registry teams were the recipients of the output of the PMO in the form of training sessions, the physical student Hub and the SID system.

The output of the meetings was inscribed in documents which contributed to the stabilization of the student Hub and the SID system through approval at Executive Board and through being transformed into targeted news updates, forming agenda items at planning meetings and forming the basis of training sessions for Faculty and Registry staff. The student Hub and SID were inscribed into existence via the activities of the PMO and associated actors. Part of the transformation through inscription was the naming of the student Hub and SID. Through inscribing the name of the actors or entities the actors became solidified as entities that staff would be able to identify with and through the inscription process staff began to conceptualise the reality of the change and led to the gradual adoption of alternative imposed identities – with variable results.

The first move toward significant team change was the implementation of the SID system. The Hub Project Manager was instructed by the PMO to carry out a series of training and briefing sessions with affected staff and to provide communications to all staff and students via email and the intranet about the introduction of the system. The

student Hub and the SID system were being talked into existence through a mutual transformation of human and non-human entities where humans speak to others at a distance through the use of texts and other non-human actors, (Clifton, 2017). The next section describes the adoption of SID by Faculty and Registry staff.

4.5.3 Adoption of SID



Figure 14 SID Launch Poster

The SID system was soft launched May 1st, 2015 – see Appendix H SID Notification to Students for the SID launch communication sent to all on-campus students. The plan was to launch the system after the exams period so that students could post queries about their exam results rather than having to see a member of staff in person. Faculty and Registry staff were asked to undertake SID familiarization training. The SID system was based on the following use case scenario:

- Student with a query relating to their exam – marks query etc. Access the SID system via the university web site
- The query (ticket) would be routed via the SID system to the query queue
- A queue manager (Faculty Manager or Registry Manager) assigns the query to the relevant team and staff member
- The SID system emails the student with a confirmation message
- The staff member investigates a solution and replies to the student via the SID system
- The student receives an email outlining the solution to the initial query

- The staff member closes the query

The SID system was designed to address the issues specified in the PMO objectives. The introduction of the SID system resulted in a negotiation loop due to structural changes to the organization and to key staff posts.

The SID system was implemented in May 2015. The Registry and Faculty teams worked with the Registry manager on the implementation. The Registry manager had to ensure that the system was adopted consistently across the teams and the organization but an issue with the number of available licences arose which prevented academic staff from using the system there was also a shortage of licenses for Faculty and Registry staff.

The negotiation loop for the implementation of the SID system resulted in the need for solutions to several initial challenges. First there was the need to make sure that all staff using the system were adopting it consistently. The SID system relies on inquiries being assigned to a queue and to a member of staff within a queue. Managers in Faculties and Registry were assigned the role of Queue Manager for their areas. The licencing issue was solved through agreeing with the administrative teams that they would send inquiries relating to academic staff via the SID email system. Emails from academic staff would need to be sent from the individual academic and then back into SID using the designated SID email address.

Queue managers were asked to confirm all staff who had been allocated a license and to remove any from the system who no longer needed it or had left the university. These solutions allowed the IT team to manage the licensing problem. Stabilization was starting to be achieved through queue management, training and communications from the Registry Manager, but the Validation of the solution was subsequently challenged weakening the Stabilization process.

The implementation of the SID system was initially deemed successful, but the Registry based SID champion left the organization which resulted in an imbalance in how the system was implemented. One member of the Registry team provided technical support to users but who also left the university. This resulted in a vacuum in communication and leadership for the implementation.

A negotiation loop emerged from the output of the Validation of the implementation and adoption loop due to the Hub Project Manager leaving a month after the implementation of the SID system because the contract came to an end and it was decided not to renew this. This was followed by the resignation of the Registry manager and subsequently the resignation of the Registry technical officer. A challenge to the adoption of the SID

system occurred among the Faculty administrative staff shortly after the introduction of the system based on the question – why use SID to communicate with students when email is just as good?

The Registry had the advantage of having the SID Champion working in the same team and this enabled the system to be implemented in a disciplined way. In the faculties, control around the use of SID was harder to control. In order to reduce the use of email contacts with students it was agreed that some first contact staff would use a generic email address sid@xxxuniversity.ac.uk. The main issue with this was that staff could still respond using their own email address which led to students replying directly to staff which then undermined the SID system.

4.5.4 Post Implementation Uptake of SID by Students

In April 2016 XXX University recruited an external consultant who was given the remit to analyse the uptake of SID by students at post and undergraduate levels. The data confirmed that there had been a significant uptake of the use of the system as described in the charts below:

Undergraduate Self Service Enquiries (Qty 5381)

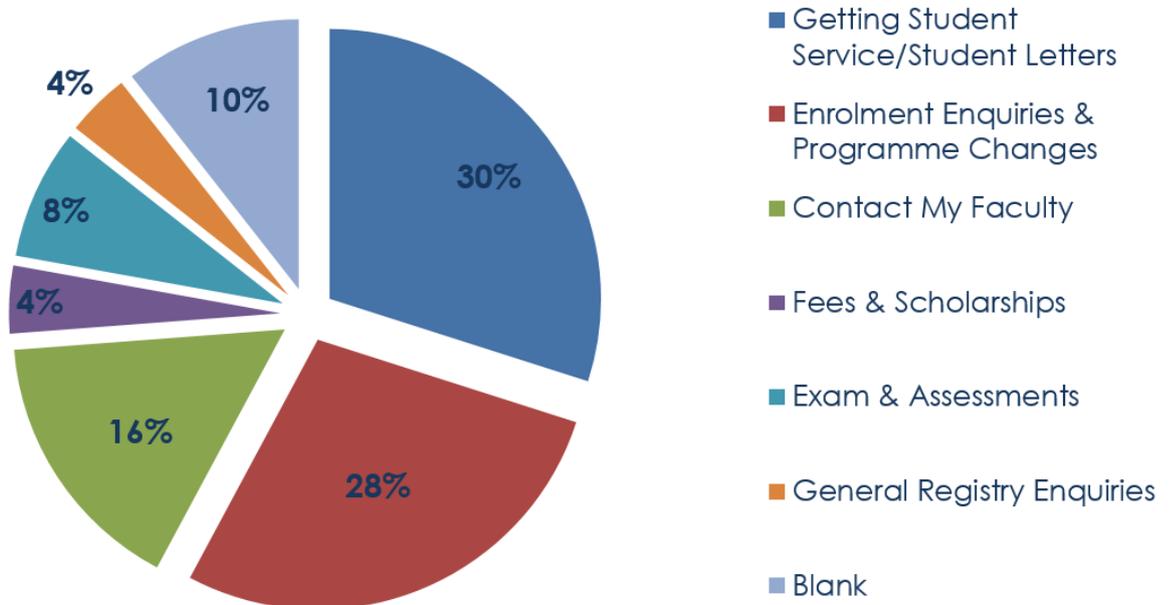


Figure 15 Undergraduate Self Service SID Enquiries April 2016

Post Graduate Taught Self Service Enquiries (Qty 3684)

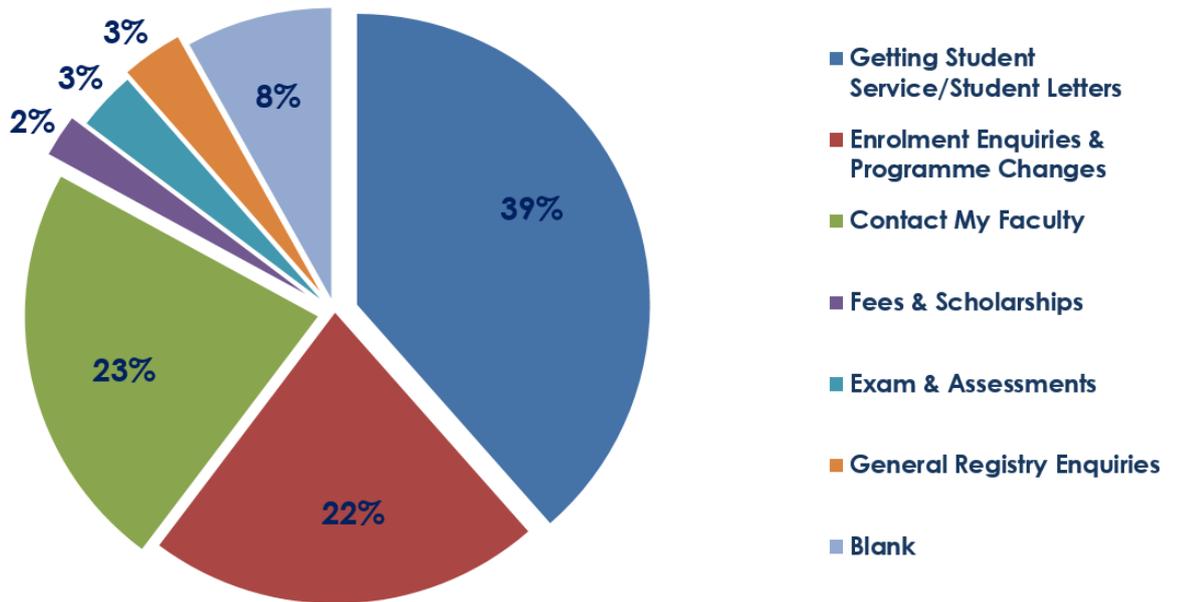


Figure 16 Postgraduate Self Service SID Enquiries April 2016

SID Data Enquiry Extracts Total 11,824

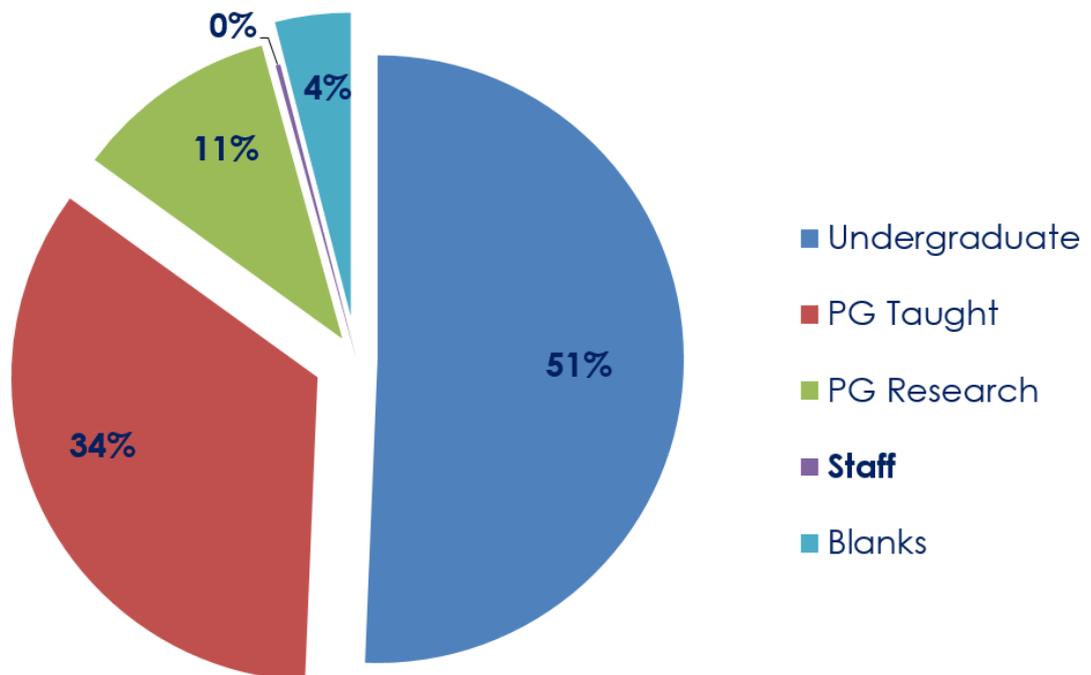


Figure 17 Total SID Enquiries April 2016

(Anon, 2016b)

The SID system was considered a success at this point in terms of student engagement as the data was within the expected level of uptake. The larger undergraduate engagement was expected due to the timing of the system launch – after the exams period. The number of postgraduate students is lower than the number of undergraduate students, so the expectation was that there would be fewer enquiries.

4.5.5 SID Post Implementation Review

In June 2017, a SID post implementation review paper was presented to the Portfolio Board. At the final project board meeting held in April 2015 it had been agreed that a post implementation review should be carried out. The aim of the review was to seek opinions from those using the system the extent that it had delivered its objectives and to outline a future for the system. To gather data for the review 18 members of staff were interviewed using mainly unstructured interviews. Participants included the SID project developer, technical lead and frontline staff users of the system. This review was carried out independently of this research project. The findings however correlate closely with the interviews carried out for this project.

The key findings of the review are as follows:

- The introduction of SID has been largely successful, particularly judged from the volume of enquires and requests being handled. There has been good feedback from most staff involved.
- SID is supporting greater professionalism and improved service levels although this is unevenly spread.
- The majority of staff view it as a new capability that has the potential to be majorly expanded in use in future.
- However, there is a risk that this momentum may be lost if:
 - There is no dedicated service owner/manager
 - There is insufficient technical resource of high calibre dedicated to the service
 - More student services and processes are not brought on to SID
 - The integration of SID with the forthcoming physical student hub is not thought through and handled well.
- When asked whether the School should have undertaken this project there was almost unanimous agreement that it had been.

The following points correlate strongly with the findings in this research project:

- *On emails the majority felt that these had reduced but only slightly. The reason for the only small reduction was the oft cited “duplication problem” whereby student lodge a request on SID but follow it up with a corresponding email.*
- *Additionally, since academics did not use SID they simply forwarded student enquiry emails.*

- *There was also an issue with some students simply not using SID and some departments had sought to address this by having an automated email response telling students to request via SID or it would not be dealt with. Once more cohorts move through this might drop.*

(Anon, 2016a)

4.5.6 The student Hub Progress

Running concurrently to the SID project was the development of the physical space known as the student Hub. The rationale for the Hub was for it to become a one-stop-shop for student queries, a café, and office space for student related services such as student finance, Registry services, exams queries, and a service desk dealing with face-to-face queries.

The student Hub opened to students in September 2016. XXX University drafted the following text that provided an update on the Hub:

The Hub team has been formed from existing Registry staff and through recruitment of new staff. The team of Information Officers come from a range of backgrounds in education and customer service, including two who are recent XXX University graduates and former student ambassadors. The development of the Hub team is ongoing to ensure that they have the breadth and depth of knowledge to effectively assist students with almost any enquiry. We have appointed an interim Hub Manager to lead on staff training and to develop effective processes. This work includes the development of links with the Faculties and other professional services to work towards a fully coordinated and 'seamless' student journey through XXX University administration procedures.

...the Hub provides a central and accessible point for student advice and guidance including student records, fees and funding, scholarships and examinations. The Hub hosts drop-in surgeries for students giving detailed advice and signposts to specialist services and support including Careers and Student Wellbeing. These services are also located on the Lower Ground Floor, providing a co-located range of services for students for the first time at XXX University. The Hub team also manage our on-line student information desk (SID), ensuring students receive a consistent and 'joined up' service regardless of whether they seek help on-line or in person.

News communication to all staff dated: 1st November 2016.

The stated objective of the student Hub was to Increase efficiency of student support through ongoing development of student Hub and through online Student Information Desk (SID). Prior to the opening of the student Hub a consultation paper The Proposed

XXX University Student Hub was published that outlined the impact of the Hub on staff roles and existing teams. The paper provided details of where staff would be drawn from and indicative numbers of staff and the types of roles that would be available.

4.5.7 Restructuring the Student Hub: Implementing Change

A restructuring proposal was submitted to Executive Board that was designed to review the existing Registry team structure and modernise roles and to create a more customer focused team more aligned with the Faculty administrative teams. An organizational consultation programme was initiated, and this proposed that there should be:

- Student Hub Manager (grade 8)
- Deputy Student Hub Manager (grade 7)
- Student Compliance Manager (UKVI and attendance monitoring) (grade 7)
- Senior Students Records Officer (grade 6)
- Student Records Office (grade 5)
- x Student Advice Officers (located in the student hub) (grade 5)

The proposal resulted in a shortfall of four posts compared to the existing structure. The staffing restructuring proposal set out a vision for the student Hub and Faculty teams coming together and creating a single cross functional team. The aim was to significantly improve the quality of service provided to students and there is explicit use of the term “customer focused student facing roles”. This is a significant break from previous team identities where the term customer focus was not seen as appropriate. The paper also stated;

“Having the right type of individuals in the front facing roles is critical for the success of the hubs and to achieve the step change in student perceptions of XXX University administration.”

The nature of the staff restructuring and change and restructuring initiative generally followed Lewin’s unfreeze-move-re-freeze model (chapter 3.2.1, page 67). From an ANT perspective, the restructuring of the Registry was an illustration of how a management team can change the identity of a team and impose a new one. Interviewee A01 stated that team members had concerns about the impact of the impending restructuring and associated changes because of the potential for teams to be merged. The concern was based on team differences and how these might impact the future identity of the teams and the fact that there are strong in-group and out-group identities. The impact of technology on the teams’ identity is highlighted through the description of how the team has over a fifteen-year period had to adopt an increasingly complex set of information

technology systems. The combination of team changes and technological innovation have increased in recent years and the construction of the student Hub and SID system implementation are the most significant in terms of team identity to have occurred at XXX University during the past five years. The changes have impacted the team, the team's customers and the processes used to deliver services.

The impact of SID has been to begin a transformation from personalised service that they have been delivering over the years to moving away from face-to-face to the virtual system. This has started to change identity of the team due to moving from a manual system to computerised systems.

Interviewee A01

4.5.8 Adoption and Stabilization of the Student Hub

The development and construction of the Student Hub proceeded and was opened in September 2016. The staff team was restructured, and several existing staff left the organization whilst a number of new appointments were made. The staff in the Student Hub were expected to use the SID system daily and it quickly became the main method of communication between students and the Hub team. The Hub team acted to route Faculty related SID queries to the correct queue but then had no management of these onward queries.

The Student Hub was planned to be the first point of contact for students to raise queries in person and combined with the SID system was expected to streamline service delivery. The impact of the Student Hub on Faculty administrative teams was to reduce the footfall of students in local offices. This had the effect of exposing the Faculty-based teams to the scrutiny of the Registrar who began to question the need for the Faculty offices in their current form and to ask how best to use resources based outside of the Student Hub.

4.5.9 Restructuring the Faculty Administrative Teams

In June 2017, a change proposal was submitted to XXX University Executive Board that outlined plans for changes to the Professional Service teams. The restructuring was a response to the recent restructuring of academic Departments that were changed from a three Faculty structure to an eleven Department structure. The Professional Services and Faculty administrative teams needed to be aligned to the flatter Department structure to be better placed to deliver services.

The underpinning logic of the change proposal was to shift funding away from business functions to student facing activities. Another significant aspect of the change proposal was the suggestion that job descriptions for professional service staff should be focused on competencies rather than technical abilities. The aim of this was to focus on behaviours that were seen as lacking such as customer focus, self-leadership, creating a culture of agility, improved communication and collaboration and a focus on the development of teams and individuals. Four concepts were stated as underpinning the change proposal:

- That the relationship between faculty and support staff is strongest in a decentralised model;
- That students identify most closely with their subject home or discipline;
- The notion of 'One Professional Service';
- Business partnering and the notion of academic department management teams.

See Appendix L: SID32

As part of the restructuring process the Registrar initiated a staff consultation as per the Human Resources policy on major organizational changes. The consultation included a series of presentations by the Registrar outlining the change strategy including issues affecting the Higher Education sector globally, nationally and locally, the proposal for the new structure and a model describing how change might affect people over time. The model used was Fisher's Personal Transition Curve – see page 73, chapter 3.2.1.

4.5.10 Faculty and Department Structure

Up to January 2017 XXX University operated a Faculty / Department Structure with three Faculties and eleven academic Departments. The institution also contained a number of specialist academic Centres. Each Faculty was managed by a Dean of Faculty and each Department by an Academic Head. Administrative services were provided by a Faculty based team managed by a Faculty Manager and a number of Team Leaders.

The Faculty structure was increasingly criticised by Departmental staff because it was seen as an unnecessary layer between the university Executive and Departments and prevented local decision making. One of the critical issues was distribution of funds across the university where student income was dispersed to Faculties and budgets set at Department level. Heads of Department felt it would be better if they had local control of Departmental funds based on income generated by students enrolling on programmes within their portfolio.

A decision was made in 2016 to carry out a major organizational restructuring. After a lengthy consultation period a decision was made to remove the Faculty structure in favour of a Department-based structure that included devolved budgets.

Following on from this restructuring, a restructuring programme was initiated with the aim of better aligning ex-Faculty administrative staff more closely with the new Department structure.

The design of the new structure was to be based on the principal highlighted on page 134 where the service would be moved away from the previous Faculty level to a localised level, to be delivered at a point nearer to where students were based.

The majority of Faculty administrative staff were aligned with an academic department for operational work and student allocation but were seen as a cross Faculty team for organizational purposes. Although the Faculty administrative staff were a team there was little cross Faculty team working and staff struggled with issues of team cohesion. Organizationally, staff were operating as a series of Departmental work groups with most staff focused on individual areas rather than on formal team structures and processes. In many cases team working operated outside of the Faculty structure across external teams such as Exams, Registry and increasingly the new Student HUB.

Although staff were aligned to the Faculty structure, they were recruited, employed and paid via Faculty funds staff did not feel strongly aligned with the Faculty Structure [A09 -225]. The real interests of staff lay with the Departments. Department Heads were also keen to have administrative staff closely aligned to their Department [A03 – 80], to be providing services directly to Departmental academic staff and students. The interests of the administrative staff and academic teams aligned with each other at this point and this became a significant component of restructuring proposals and the consultation.

The outcome of the restructuring was that the Faculty structure was dispensed with and a flatter self-managing set of Departments were established. It was agreed that administrative support would be strongly aligned to the Departments with each Department having a Department Manager and two Department Officer posts.

The Departmental administrative teams were to become part of a wider restructuring of professional support services (Estates, Finance and Human Resources etc.) which was branded One Professional Service by the Registrar, Appendix L: SID32).

Departmental administration teams would be co-located in a business partnering relationship with Departments.

After the new structure had been agreed, the Departmental administrative teams almost immediately took on strong Departmental team identities and the previous Faculty alignment was dropped.

During this time, the SID system was being introduced and struggled with poor adoption within the Faculty structure [A03 – 91/92/107]. With the development of the Departmental administration alignment, the SID system become more strongly identified with the Departments. The alignment was not specifically related to the SID system but to the fact that Departmental students were using the system and the teams' strong identification with Department meant that they took ownership with their SID student queue. The SID system became identified as a Departmental communication medium for Departmental students rather than a Faculty tool that no one felt that they could take ownership of. The organizational structure shown in Figure 18 was in place prior to the restructuring of academic departments and related administration teams. In this model the student submitted queries to SID which would then be posted to a Faculty queue. Queries would be routed to a queue manager who would then assign the query to a member of relevant Departmental staff.

Recent observations suggest that the SID system is being accepted by the Department teams as an aid to dealing with student queries and as a way of reducing numbers of students attending Department offices in person, thereby improving services to students.

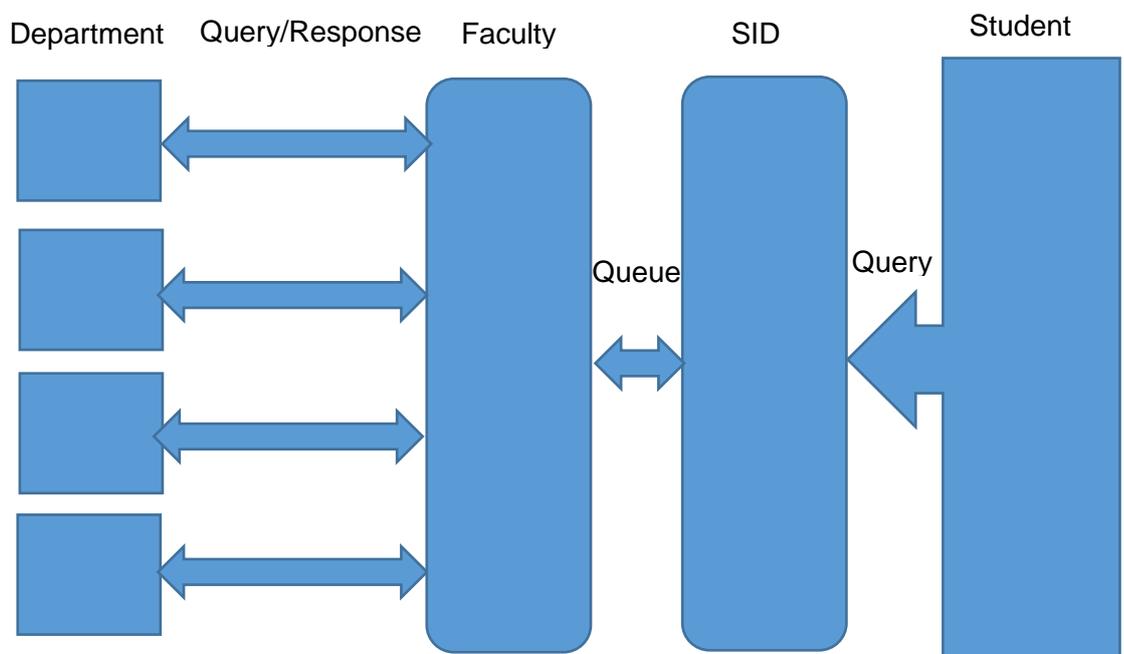


Figure 18 Organizational structure including the Student Information Desk (SID): Faculty / Department Structure

The following organizational structure followed on from the restructuring of the academic Departments and related administration teams. Students submit a query to the SID system which is then picked up by relevant Departmental staff. There is no Faculty queue manager assigning queries to Departments.

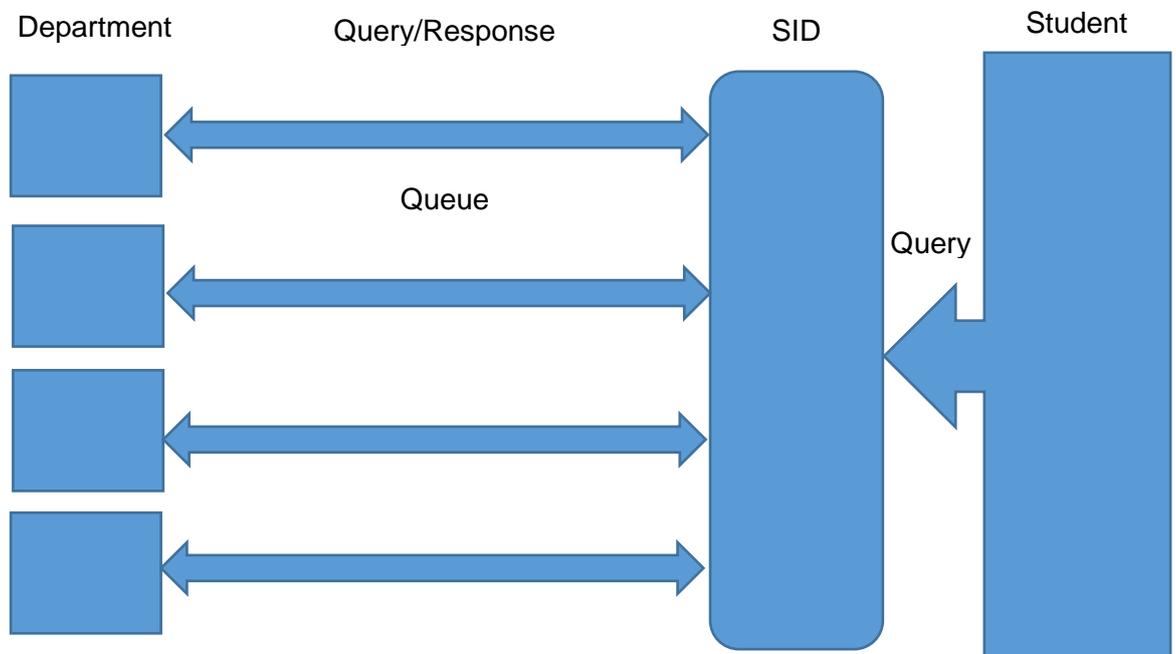


Figure 19 Organizational structure including the Student Information Desk (SID): Department Structure

4.5.11 Change and the Transformation of Team Identity

The restructuring exercise resulted in staff in the three Faculty administrative teams being aligned directly to the eleven new academic Departments with a Department Manager and in most cases two Department Officers. The Department Managers reported on a day-to-day basis to the academic Head of Department and for line management purposes to the Faculty Manager. The budget lines for Departmental administration teams was transferred to Department budgets. Almost as soon as administrative teams had been assigned to Departments as Departmental administrative teams there was an almost immediate change in the behaviour of some of the Departmental teams. Teams that had been part of the wider Faculty team that were located into Department offices started to cut ties with their previous colleagues and went through a process of developing a close identity with their new academic Department. New behaviours were observed that included a reduction in cross team communication, the development of individualised ways of organizing work and a reduction in support to students.

One ex-Faculty administrative team that was split and aligned to two academic Departments and one cross-departmental team remained in the same location that they had been in but did not demonstrate the same level of service withdrawal as those teams that were moved into departmental locations.

The transformation of the teams' identities through the period of the consultation and after the restructuring relates to Cooren's, (2015) assertion that speech, including that set down in documents can define and redefine the identity of teams through performative declarations. For the teams concerned here, the declarations of alignment of staff from an existing Faculty team to a new Department-based team contributed to those new teams coming into existence. The combination of Actants working together, meetings, documents, speech acts, SID, training sessions, reviews and feedback in writing and in discussions all contributed to the re-formulation of the teams and the acceptance of the new Departmental administration identity. This correlates with the performative/inscriptive aspect of ANT and also aligns with Latour and Bourdieu's view that "...(*arte*)-facts are collective constructions involving the participation of multiple mediators; second, the fact that these mediators act in a competitive way." (Buzelin, 2005). For ANT performance and performativity are important aspects of the process of building a new network of associations and this is also the case for declarations which are the "*performatives par excellence*" (Cooren, 2015). Declarations have the power to change and transform identities. Identity is an effect of repetition and routine and continuity. Identity comes into being partly through the performative action of naming, promoting and condemning (ibid).

Through meetings and the process of restructuring the teams, team members' interests were aligned with the new actor-network. XXX University had through the process of working with a series of interlinked negotiation loops assembled the Student Hub and the virtual hub (SID) by bringing together physical buildings, cloud technology, IT networks, IT staff, project managers, senior managers, operational managers, front line staff, paper documents, talks and discussions and negotiations and other actors. In combination, these Actants and actors formed the actor-network that became the Department administration and Registry teams. Thus, the actor-network became stabilized to the point where there had been a transformation and new identities had been established and, in most cases, adopted. At this point the SID system and the Student Hub became Punctualized networks where the components of the SID system and the Student Hub just became known as SID and the Student Hub. The individual components were no longer visible. The networks had been brought into being through the combined agency of humans and material actors and these constituted a macro or

collective actor-network operating on behalf of those actors. The identities of the new teams and team members comes into being through discussions, agreements and the issue of formal contracts and job descriptions. The contracts and job descriptions attest to the new identities by specifying rights and responsibilities. Through the interaction of heterogeneous actors, the team had started the process of transformation and the adoption of new norms.

Chapter 5 Analysis

Chapter 5 introduces the analytical methods used to analyse data collected for the project and includes an overview of thematic analysis, questions developed from an analysis of transcripts, NVivo queries developed from these questions as a method of extracting data from transcripts and an in-depth analysis of the case using supporting evidence from transcripts and documents. Concepts from ANT are used as a lens through which to contextualise and this brings to light issues of competing forces, resistance to change and technology adoption and ultimately to the imposition of new identities through the alignment of interests that emerge because of the organizational restructuring.

5.1 Analytical Method

Making sense of the data collected proved challenging, the volume of data was initially overwhelming. The purpose of the analysis is to explain and if possible to develop theory. Qualitative analysis can be useful for determining causality. Miles and Huberman (1994), note that causality is closely linked to questions relating to time where events precede or follow one another, this is relevant to this research. Another critical point is that causality in terms of human action or intention is never straightforward due to the complexity of human relations and the interactions between entities. Miles and Huberman (1994), note that causality is local – linked to specific events that take place in specific times.

A systematic approach was taken for the analysis. Data collected needed to be organised and analysed to determine whether it provided answers to the research questions and / or provided any basis for generalizable theory applicable to other scenarios. One of the most significant challenges for the qualitative researcher is being able to make sense out of the amount of data collected (Miles and Huberman, 1994). Over the past 30 years many qualitative data analysis software (QDAS) applications have been developed.

Of these, probably the most frequently used are QDA Miner, NVivo, ATLAS.ti and MAXQDA. All the products mentioned allow the researcher to import a wide range of file formats including audio, text files including PDF files, video and webpages. All QDAS have pros and cons, with the pros being speed of processing, text searching, creation of codes and themes – manually and automatically, visualization of data in various forms including graphs. The cons tend to be, the complexity of some software packages and associated learning curve but the main issue is that none of the packages can analyse

data in terms of making informed decisions about the data in the specific context of the live situation, they can only act as an aid toward analysis. The researcher needs to be able to always remain in control of the data and the process of analysis (Zamawe, 2015).

For this research project, NVivo version 11 was selected as the preferred QDAS application. The rationale for this was partially due to the availability of the application (free to registered students), and support and training provided by the university. NVivo also allows for in-application transcription.

All recordings, transcripts, documents and emails were imported into NVivo for transcription. For coding the researcher has two main options, In Vivo or pre-designed codes. For this project pre-coding was decided on as the approach. Pre-coding allowed for the codes to be designed around a conceptual model based on the research question and initial theoretical models.

Prior to coding and analysis, the previously designed coding structure (known as nodes in NVivo) was created (Appendix D Start List of Codes). Transcribed audio was then coded using the pre-determined nodes. Documents and emails also had nodes associated. After the initial coding the transcripts were reviewed, and additional In Vivo codes added as necessary.

Miles and Huberman, (1994, p.148), suggest that a Case Dynamics Matrix can be used as a method for linking data to explanations and events (time). At the time of writing Miles and Huberman suggested that an explanatory effects matrix be drawn up using a word processor. The advantage of QDAS software such as NVivo is the speed that data can be analysed, and a variety of matrices generated.

Taking the concept of the explanatory effects matrix as a starting point, a series of questions were developed based on the initial research questions and the context of the research site.

Questions underpinning the search for causal links leading to possible explanations were designed to help with the development of a series of matrices built on the NVivo nodes used in the coding of transcripts and documents.

Unlike Miles and Huberman's word processed explanatory effects matrix, NVivo does not explicitly include the text referenced in the transcripts or documents. An example of an NVivo matrix query can be found in Table 7.

In addition to coding at nodes, long form notes were included as memos. Memos in NVivo are locations where thoughts and extended narrative can be drafted, and the memos linked to specific nodes. Memos can be included in matrix queries and the memos used as the basis for analysis.

5.2 Thematic Analysis

Thematic analysis was used to develop from the coding structure a set of themes that could be applied to the transcripts and other materials. Thematic analysis begins at the point of data collection where the researcher considers possible emerging themes. This is especially relevant to CI where data collected is reviewed shortly after the completion of interviews.

The thematic analysis process consists of the following six steps:

1. Familiarization with the data
2. Generating initial codes
3. Searching for themes
4. Reviewing themes
5. Defining and naming themes
6. Producing a report

(Braun and Clarke, 2006)

The thematic analysis carried out for this research project proceeded as follows:

1. Familiarization with the data: the data was input to NVivo and transcribed. The transcription process constitutes the first part of the analysis and allows for the analyst to gain an initial understanding of the data and to begin to look for an initial set of themes.
2. Generating initial codes: codes were developed prior to the transcription process and based on the coding conceptual framework. The framework was developed after developing an understanding with the literature and from considering potential codes stemming from the review of interview data after the interviews.
3. Search for themes: themes were developed from a cyclical review of the codes, considering the content of transcripts and from carrying out coding in the transcripts.
4. Reviewing themes: themes were kept under review throughout the coding process. The conceptual framework provided a solid underpinning for the coding which resulted in minimal changes to themes.

5. Defining and naming themes: the initial set of themes were kept under review and definitions set for each theme. Definitions were input to NVivo. Through the process of transcript review, query building and output and review of the codes a series of questions (see section 5.3) relating to the research question were developed and from these themes were refined.
6. Producing a report: the coded transcripts were passed through a series of case queries using NVivo. The output from the queries was used as an integral part of the report.

The steps outlined above are not carried out step-by-step but in a cyclical manner moving back and forth through the steps as the analysis proceeds.

The queries generated sets of data corresponding to the transcripts, with varying amounts of data relating to query criteria being generated. According to Braun and Clarke, (2006), large amounts of data are not necessarily more relevant than references where there are only one or two references to an issue relating to a theme. As long as the transcript data is relevant and sheds important light on the overall situation it should be included in the report.

	A: TC_CHNG	B: TC_IMP_SID	C: ID_CH	D: ID_EFFECT_ORG	E: ID_EFFECT_TECH	F: ID_EMERG	G: ID_IMPOS	H: ID_MULTI	I: ID_PERCP	J: ID_TRANS
1 : AT_ALIGN	0	3	0	0	2	0	6	0	0	0
2 : AT_IMP_ID	0	3	0	1	6	1	7	0	1	2
3 : AT_OPP	1	2	0	0	1	0	0	0	0	0
4 : AT_SPOKES	1	0	0	0	1	0	0	0	0	0
5 : TM_ADMIN	0	0	0	3	0	0	0	0	1	2
6 : TM_CULT	1	3	0	0	1	0	2	0	1	0
7 : TM_MAN	4	2	1	4	3	0	0	0	1	0
8 : TM_TRANSF	3	2	0	3	3	0	1	0	0	1

Table 7 NVivo Matrix Query Example used as part of thematic analysis

Table 6 illustrates the NVivo node matrix query relating to the changes in team identity. The table shows the row and column layout and the number of references in the data to the areas that meet the query criteria.

The table can be interpreted in the following way, for the code at row (or node) 3: AT_OPP (ANT, Obligatory Passage Point), there is one reference in a transcript coded at the column (or node) TC_CHNG (technology change), and so on. Clicking on a number will open the reference to the transcript in a new window.

Figure 20 illustrates the associated matrix graph that can be used to visualise the relationships between the rows and columns in the matrix query.

AT_THESIS_QUESTIONS_Q2 (4)

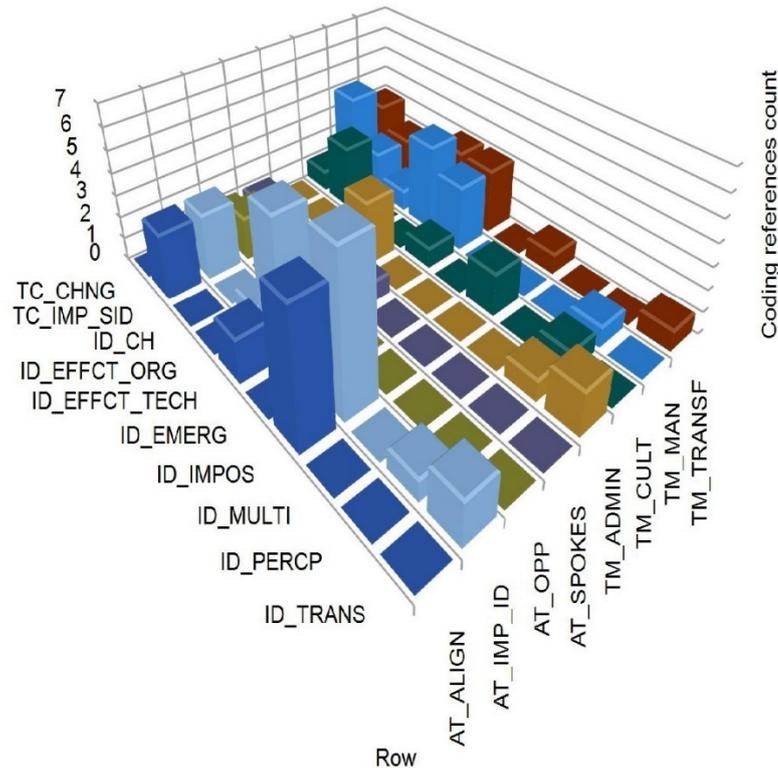


Figure 20 NVivo Matrix Query Graph

Clicking on any of the graphed points will open the underlying text from the related transcript.

5.3 Questions used to Develop Node Queries

For the development of a comprehensive set of matrix queries, the following questions were used as the basis for the development of a series of NVivo matrix queries.

1. What evidence is there that the Obligatory Passage Point was defined?
2. What evidence is there that new identities needed to be imposed on faculty administrative and Registry staff?
3. What evidence is there that administrative staff in faculties and the Registry have adopted an imposed identity?

4. Were the interests of faculty administrative and Registry staff identified and aligned with the goal to introduce SID?
5. What historical evidence is there to indicate how previous organizational changes have been managed?
6. What evidence is there to suggest that Fishers Personal Transition Curve could be applied to the change relating to the implementation of SID?
7. What actions did managers take to impose new identities on faculty administrative and Registry staff?
8. What evidence is there to suggest that alignment of interests and imposition of new identities took place?
9. What was the impact of the implementation of the SID system on faculty administrative and Registry staff and their roles?
10. If teams accepted their new identities did the changed identity become durable?
11. What threats to the new network of associations were identified?
12. Was any evidence of non-human agency detected during the study?
13. What elements of ANT are most identifiable through the implementation process?
14. Were any external pressures identified that potentially undermined the development of the new network of associations (the SID system).

ANT informed the design of questions using the specific vocabulary to guide the development of the questions. The key aspects of ANT that were made use of are the OPP, the formation of identity through networks of association, imposition of identity, heterogeneous elements, human and non-human actors.

The reason for using ANT to guide the design of the questions was so to help make sense of the volume of data collected. The transcripts, documents and observation materials required organising into codes and themes, a very time consuming and potentially confusing process. To organise the data a series of Contact Summary Forms, see, Appendix E, were created (Miles and Huberman, 1994). These allowed for summaries of the transcripts and for initial themes to emerge.

From this an initial set of codes was developed using ANT, organizational change, and identity terminology, see Appendix D. Using these concepts to guide the development of questions, codes and themes created a framework for the interpretation of the data and from this clear ANT themes e.g. the four moments of Translation, began to emerge, see section 5.4, page 149.

5.4 Queries Developed from the Questions

The following table describes the row and column designs that generated the explanatory effects matrices relating to the above questions.

NVivo Matrix Query Design			
Question #	Row Node(s)	Column Node(s)	Theme(s)
1	AT_OPP	AT_ACTOR AT_ENROL AT_INTERESS AT_MEDS AT_MOBIL AT_OPP AT_TRANS	Obligatory passage Point (ANT)
2	ID_CH ID_EMERG ID_IMPOS ID_TRANS	TM_ADMIN TM_CULT TM_TEAM_CHNG TM_TEAM_IMPCT TM_TRANSF	Identity change (ANT)
3	ID_EMERG_ID ID_CH ID_IMPOS ID_PERCP ID_TRANS	AT_ENROL AT_MACRO_ACTOR AT_MEDS AT_NEW_ASSOC AT_OPP AT_POW AT_POW_CHNG AT_BETR AT_DUR AT_TRANS TM_ADMIN TM_TEAM_CHNG TM_TEAM_IMPCT	Imposition of identity (ANT) Change

		TM_TRANSF	
	NVivo Matrix Query Design		
Question #	Row Node(s)	Column Node(s)	Theme(s)
4	AT_ALIGN TM_ADMIN TM_MAN	A01_Interview 01 A02_Interview 02 A03_Interview 03 A15_Interview 15 AT_BETR AT_DUR OC_EMERG_CHNG OC_EXT_FRC_CHNG OC_IMPC_CHNG OC_INFU_CHNG OC_STRUCT_CHNG TC_IMP_SID TM_TRANSF	Alignment of interests (ANT) Team management (Management)
5	A01_Interview 01	OC_CHNG OC_EXT_FRC_CHNG OC_ORG_REST TM_ORG_IMPC TM_TEAM_CHNG TM_TEAM_IMPCT TM_TRANSF	Organizational change (Organization) Impact of change on the team (Change)
6	AT_BETR AT_DESTAB AT_DUR AT_SPOKES AT_STAB AT_TRANS	TC_ACCPT TC_ADOPT TC_CHNG TC_IMP_SID TM_ADMIN TM_MAN TM_TEAM_CHNG TM_TEAM_IMPCT	Destabilization Betrayal (ANT)

		TM_TRANSF	
	NVivo Matrix Query Design		
Question #	Row Node(s)	Column Node(s)	Theme(s)
7	TM_MAN TM_TEAM_CHNG TM_TEAM_IMPCT TM_TRANSF	AT_IMP_ID ID_CH ID_EFFECT_ORG ID_EFFECT_TECH ID_EMERG ID_POWER	Managers imposition of change (ANT/Management)
8	AT_NEW_ASSOC	AT_IMP_ID AT_OPP AT_POW AT_POW_CHNG ID_CH ID_EMERG ID_IMPOS	New networks of association (ANT)
9	TC_ACCPT TC_ADOPT TC_IMP_SID TC_PLAN TC_READY	AT_EMG_ID ID_EFFECT_TECH TM_CULT TM_MAN TM_ORG_IMPC TM_TEAM_CHNG TM_TEAM_IMPCT TM_TRANSF	Adoption of newly imposed identity (ANT) Change
10	AT_DUR	TC_CHNG TM_TEAM_CHNG TM_TEAM_IMPCT	Durability / Black boxing (ANT)

NVivo Matrix Query Design			
Question #	Row Node(s)	Column Node(s)	Theme(s)
11	AT_ANTI_PROG AT_BETR AT_DESTAB	OC_CHNG OC_EMERG_CHNG OC_ORG_REST OC_STRUCT_CHNG TC_ACCPT TC_ADOPT TC_CHNG TM_TEAM_CHNG TM_TEAM_IMPCT TM_TRANSF	Anti-programmes and destabilisation (ANT)
12	AT_AGENCY	TC_CHNG TC_IMP_SID TC_INN TC_REPL_MAN TC_TRN TM_ORG_IMPC TM_TRANSF	Agency of humans and non-humans (ANT)

NVivo Matrix Query Design			
Question #	Row Node(s)	Column Node(s)	Theme(s)
13	AT_ENROL AT_INTERESS AT_MOBIL AT_OPP AT_PROB AT_TRANS	AT_ACTANT AT_ACTOR AT_ALIGN AT_ANTI_PROG AT_BETR AT_CENT_CALC AT_DESTAB AT_DUR AT_EMG_ID AT_IM_MOB AT_IMP_ID AT_INSC AT_INT_ACTOR AT_INTM AT_MACRO_ACTOR AT_MEDS AT_MOBIL AT_MULTI_ID AT_AGENCY	The process of translation (ANT) SID
14	AT_ANTI_PROG AT_BETR AT_DESTAB	AT_ACTANT AT_AGENCY AT_ALIGN AT_CENT_CALC AT_DUR AT_EMERG_ID AT_ENROL AT_IM_MOB AT_IMP_ID AT_INTM	Betrayal and destabilisation Systems

		AT_MARCRO_ACTOR AT_MEDDS AT_MOBIL AT_NEW_ASSOC AT_PERF AT_POW AT_POW_CHNG AT_POW_ID AT_STAB AT_TRANS	
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Table 8 NVivo Matrix Query Designs

The output from the queries is a series of matrices and associated graphs. The matrices provide links to the collection of transcripts, recordings and documents. The narrative analysis is derived from the query outputs. The analysis is carried out using a case dynamics matrix. The case dynamics matrix consists of a table that highlights dilemmas concerning the case, the issues, who did what, how issues were resolved, what did not change and any explanations. The data in the tables is sorted using three types of change; Structural change, Procedural change and Climate change to categorise the issues.

For the findings in section 5 research participants are referred to using the coding structure in the example table 8 below:

Participants	ID	Transcript line
Manager	A01	Quotation taken from interview line 125
Manager	A02	Quotation taken from interview line 300
Manager	A03	Quotation taken from interview line 176
Administrator	A04	Quotation taken from interview line 235

Table 9 Example coding reference to transcript

This format was to ensure anonymity. See Appendix J Transcripts for all transcript references.

For the findings in section 5 research documents are referred to using the coding structure in the example table 8 below:

Document	ID
SID Launch Comms 30.04.15	SID01
20161207-AcademicBoard-Papers	SID03
Promo Flyer	SID06
Agent Guide (Apr15) (1)	SID10

5.5 Analysis of the data

5.5.1 Case Dynamics Matrix: Organizational Dilemmas Posed by Changing Student Expectations

	Dilemma	Issue	Who did what?	How resolved organizationally	What did not change	Explanation(s)
Structure	How does the university make its academic support services more 'customer' focused?	The university been criticised by students for having structures that are difficult to use and make access to forms and services difficult.	The university Director and Registrar wrote a paper in 2010 outlining the need for improved student services through a physical student HUB and an associated IT service desk.	Resources and Planning Committee approved a plan for a physical and virtual HUB. Plans were drafted into a project initiation document (PID), budget approved, and a project manager appointed.	Faculty and Registry structures remained intact after the initiation of the student and virtual HUB's	Actions were taken to plan for the development of a new student HUB and virtual HUB but changing staff teams and the human organization needed a Human Resources major change plan to be developed

	Dilemma	Issue	Who did what?	How resolved organizationally	What did not change	Explanation(s)
Procedure	Lack of clarity around how to access forms and services	Student difficulty accessing forms Students being sent from place-to-place to receive advice and support	As above	As above	A limited number of forms were nominated to become virtual forms leaving a significant number in paper form	The speed of project implementation led to a reduced project scope
Climate	Desire to provide the highest levels of service; focusing on the needs of the student	Poor feedback from students in the National Student Survey	Project Manager developed a project initiation document (PID) outlining the project aims and objectives under the direction of the project board	Project board set-up to manage the physical and virtual HUB projects.	The faculty and Registry teams were not included in the plan as far as restructuring the teams was concerned	The faculty and Registry staff teams were to be reviewed at a later date there was an expectation that this would occur at some point

Table 10 Case dynamics matrix: organizational dilemmas posed by changing student expectations adapted from Miles and Huberman, (1994)

5.6 Findings

5.6.1 Translation: Building Socio-Technical Networks

“...the Actor-Network should not...be confused with a network linking in some predictable fashion elements that are perfectly well defined and stable, for the entities it is composed of, whether natural or social, could at any moment redefine their identity and mutual relationships in some new way and bring new elements into the network.” (Callon, 1987).

This chapter explores how humans and non-humans (technological artefacts, computer systems, software, paper forms, emails etc.), are enacted and how webs of relations are formed and through these actor-network formations existing identities are undermined and let go of and new identities imposed.

The case study follows Callon's (1986b) sociology of translation whereby the transformation of socio-technological networks is described in terms of the four moments of translation, Problematization, Intéressement, Enrolment and Mobilization.

5.6.2 Problematization: Initiating Change

Following the introduction of tuition fees, the UK university sector faced significant challenges in terms of managing student expectations, the need to improve student facing services and the need to improve and modernise IT systems. University professional services teams faced increasing pressure to adopt a customer service ethos and to increase the number of online and self-service systems – see Figure 9, page 85.

XXX University identifies through measures such as the National Student Survey [SID31] and internal student questionnaires that there is a need to address significant issues relating to the student experience in relation to administrative processes and support services. These include poor front-line services and communication [SID31], provision of information, accuracy of information, students being sent to multiple locations for services, the need for students to complete paper forms, poor use of management information, the need to develop a customer service culture and the need to improve relationships between professional service departments.

In 2010 XXX University agreed to address weaknesses in its administrative and professional support processes and systems [SID30]. The university determined that in order to continue to attract and retain students especially in the light of the UK fees regime, it needed to make a considerable investment in infrastructure, IT systems [A01 – 13] and

in professionalising front-line student support. For the project timeline from 2013 see Appendix I SID Timeline of Events.

In 2010 XXX University Senior Management Team, Executive Board (EB) agreed an administration and student support strategy called Improving Information Provision. The aim of the strategy was to provide easy access to forms and to develop a one stop shop or integrated student support centre [A10 – 23].

In March 2013, a proposal was tabled at the Resources and Planning Committee by the then University Director that outlined a vision for a Student Hub which was defined as “physical and virtual space where students can receive help and can carry out a wide range of transactions” [SID30]. The result of the paper was to initiate a major change programme that would over time heavily impact Faculty and Registry staff and would result in significant disruption and uncertainty that staff would need to come to terms with, see Figure 8, page 73.

The Student Hub would be housed in a new building that was planned to open in January 2016. Alongside the Student Hub plans were made for a virtual Hub built around a service desk application [SID30]. The Student Hub was proposed in 2010 as part of the Student Administration and Support Strategy. Several project themes were defined for the system including an “Improving Information Provision” theme, “Provide Easy Access to Forms” and an “Improving Services to Students” theme containing an aspiration to “Expand and Improve Online Services”. A virtual Hub project board was appointed and met for the first time in June 2013.

The project objectives were defined as:

- Enhance the students’ experience of XXX University by delivering frictionless online and face to face administrative services.
- Develop and embed new customer service practices; putting the student at the centre of the service.
- Develop a “self-service” culture
- Clarify and reconfigure the service delivery relationships between student facing teams in Professional Services and Faculties, and the Students’ Union.
- Reduce paper trails
- Reduce footfall in designated student enquiry areas
- Reduce the number of approaches by students to the Students’ Union for help with unresolved problems.
- Reduce face to face, email and telephone enquiries

- Improve the quality of management data
- Increase the School's understanding of student information and support requirements
- The implementation of the Student Hub would result in the university carrying out a restructuring of the administrative services that directly support students

The project scope included a review of all student administration including whole of the student lifecycle, from enrolment to graduation. The virtual Hub was envisaged to cover all aspects of student administration specified in the project objectives. The following project benefits were identified:

- Contribution to increase in recruitment numbers through improved NSS student satisfaction scores and in ranking position of XXX University in national and international tables
- Increased visibility of a more positive XXX University profile
- Reduction of pressure points on staff
- Improved planning capability
- Improved cross-university collaborative working
- Reduction in silo working
- Improved internal and external communications
- Reduction of process deficits (defects?)
- Enhanced culture of continuous improvement

The following project risks were identified:

- High internal and external reputational risk should the project fail
- Capacity issues and conflicting project priorities within IS
- Interim Project Management capacity issues risk to delivery schedule
- Potential capacity issues within the School as a result of numerous projects running at the same time
- Requirement for HR change management processes delaying the project delivery

Although the list of objectives was seemingly straightforward, the impact was in practice extremely challenging for staff and managers in relation to bringing the teams together, changing working practices and structures. Previous similar change initiatives had not been effective and there was some scepticism that this change would be successful [A03 – 44].

“And the university has an unfortunate history of starting to talk about change and then putting it on hold. Which is what’s happened again, whether it’s a good or a bad thing to put that change on hold there is a sense of uncertainty that comes with that.”

5.6.3 Defining the Obligatory Passage Point

The actor-network is formed by the efforts of the focal actor who takes the role of leading innovation and change through the process of Translation, see page 86. The most critical activity for the focal actor is to gain the alignment of relevant actors’ interests to the primary objective of the focal actor. The Executive Board took responsibility for seeing the student Hub into existence and as such acted as the Obligatory Passage Point (OPP). As such had to work engage with the key stakeholders to see the project move from idea to reality.

Executive Board needed to align allies from the key stakeholders through the problem definition and needed to use the key stakeholders to assist with the development of a potential solution. The strategy to enable this was to purchase part of an existing building that would house the student Hub and associated teams, renovate the building and fit it out. It would also be necessary to purchase a virtual student Hub system or Student Information Desk (SID). The SID system would be implemented prior to the completion of the student Hub as a way of encouraging students and staff to begin the process of working differently.

The Student Hub project manager was employed specifically to oversee the implementation of the SID system into the student Hub. The project manager was responsible for reporting to the Hub project board, ensuring the project would be delivered on time, in scope and on budget and that staff who would be using the SID system were trained in the use of the system and that the SID system was promoted internally to students and staff and that a suitable launch date was decided on. The launch date was determined by several issues that were indirectly related including, the capability of the project manager [A10 – 87], the contract length of the project manager [A10 – 88] and political issues relating to the appointment of staff [A10 – 90]. On the other hand, it was stated by A07 that the project manager did successfully manage the process and that many of the issues around the implementation were personality clashes and that these were in the end beneficial [A07 – 37].

Another significant issue was the timing of the development and introduction of the SID system and how this project related to the building of the physical HUB [A10 – 94]. Due to the stretching of the timeline for implementation there was a lag between initial staff

consultation on organizational changes and the actual implementation. This led to high levels of anxiety among staff affected by the potential changes to structure and job roles [A10 – 98], [A01 – 24].

The IT team would be needed to receive a specification for the works from Executive Board, source a suitable student facing system and ensure implementation for the team to pass through the OPP. The software vendor would need to align their interest – selling software by ensuring that the application would integrate with existing systems and comply with usability and have acceptance criteria from staff and students.

The SID system would be an essential component of the changes to the structure of the Registry and Faculty administration teams. The system would need to be usable and accessible to students and staff. The functionality of the system would be key to its success. The SID system would need to become incorporated into the workflow of the Registry and Faculty administration teams and become the first port of call for student enquiries. There was however an issue of potential disagreement between the Executive Board and the IT team over the scope of the project and what components should be included [A07 – 12].

Faculty administrative staff would need to have their interests aligned so that they would be willing to engage with the SID implementation and the new student Hub Registry team. It would be necessary to clearly define how the Faculty and Registry and SID system would work together to provide the service to students required by Executive Board although due to earlier restructuring events and a failure to see projects through staff had become passive in the face of the SID and Hub plans [A01 – 27]. These attitudes corresponded to the anxiety, threat and fear aspects of Figure 8 Fisher's Personal Transition Curve (1999/2012 Figure 8 page 73).

The student Hub would be staffed by the existing Registry team, but this would require a restructuring of the Registry team followed by the Faculty administration teams. Undertaking this change would result in the majority of the existing team being replaced which was part of the strategy for changing the culture of the team [A10 – 109]. In some ways this would make the implementation of the SID system easier in this area as staff would be inducted in its use from the beginning. This situation was seen as a potential threat to the Faculty based teams, as a way of potentially undermining Faculty-based jobs [A01 – 47].

The Registry management team and staff needed to begin adjusting their strategy to align with the proposal to develop the student Hub and to enable them to pass through

the OPP. The strategic realignment would include plans to relocate the team to the newly refurbished location.

The idea was to bring the stakeholders together and to align their interests by building a plan around the problem definition. In this way the stakeholders would pass through the OPP and start to develop the network of associations needed to render themselves indispensable. The reality turned out to be more difficult because of a perception that staff involved in the change were resistant to change [A10 – 103]. Although the staff situation was variable in terms of the transition to change, the project proceeded and was delivered on time.

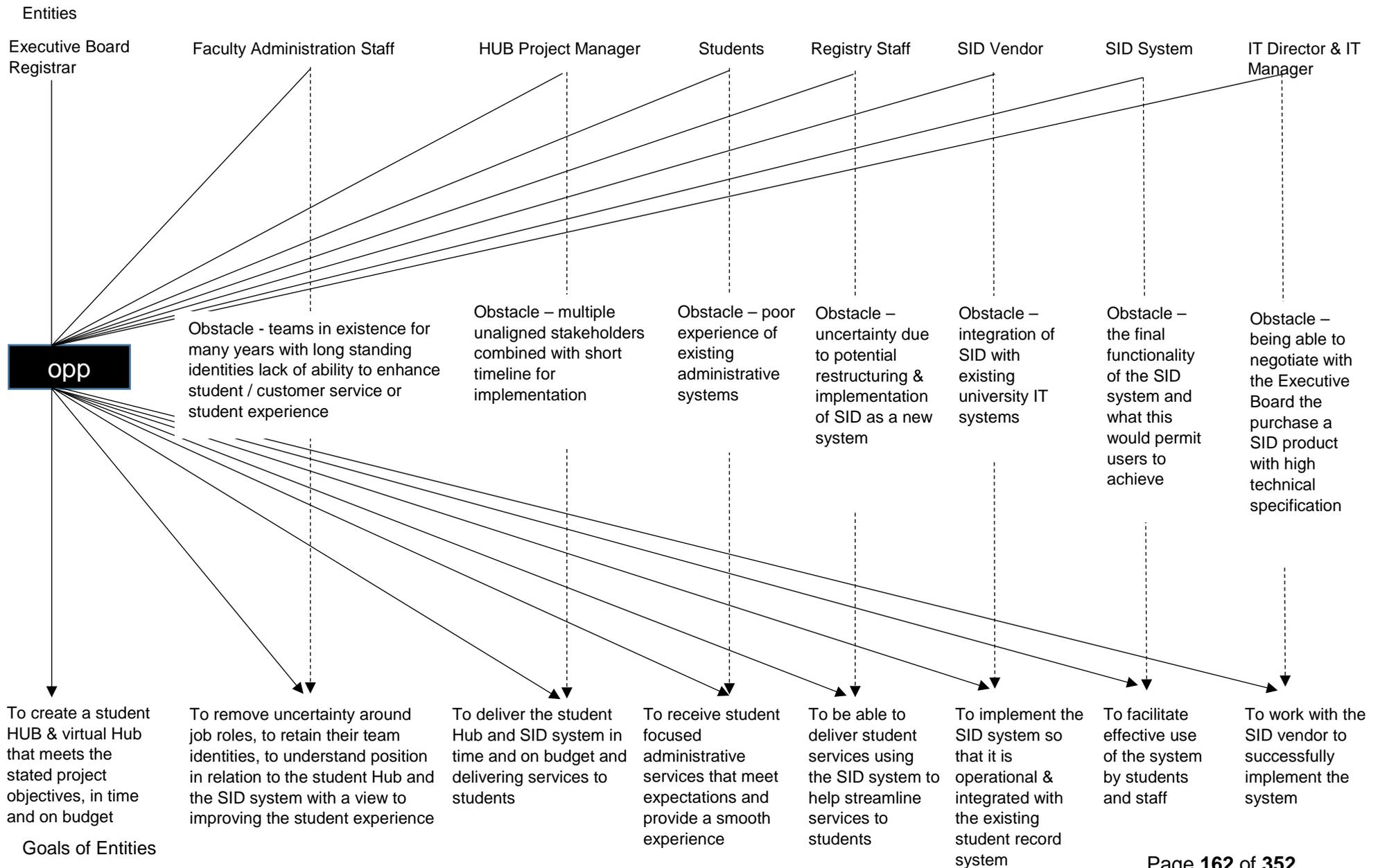


Figure 21 Problematization of the SID System and identification of the OPP adapted from Callon (1986)

5.6.4 Intéressement

The focal actors' role is to get those identified as key actors who will constitute the proposed actor-network to begin the process of loosening ties with other networks that they might be part of and identities that go along with that network and start to bring them to adopting a new identity and to align to the new actor-network.

The focal actor must carry the key actors through the OPP and start to create alliances. To identify the goals of the key actors this research used the ANT philosophy of following the actor. The key actors had a range of interests, as shown in Figure 10. Alignment was difficult to achieve due to staff in teams being in different stages of readiness and due to variations in team structures and team size [A01 – 32].

5.6.5 SID as Intermediary and Mediator

The SID system was designed to be a communication medium to allow students to raise queries (known as incidents) which would then be routed to an appropriate staff member who would then resolve the query and the student would be updated with a system generated email from within SID informing them of the outcome. In ANT terms SID would be an intermediary enabling the free movement of queries from students to staff (Latour, 2007, p.39 and Michael, 2017, p.160).

The Registry team is the first point of contact for most SID queries and will triage queries, routing them where necessary to the appropriate Faculty administrative team. The Faculty Managers were designated SID Queue Managers, with a role to monitor the queries being posted to their Faculty queues. Queue managers can assign a query to an individual team member for action.

The SID system in the form that it was implemented allowed functionality to the extent that it enabled for messaging between students and staff and in this way acted as an intermediary where the functioning allows for the transportation of messages or data without transformation. An aspect of a computer system acting as an intermediary is that the system operates as expected (page 92, chapter 3.3.9). The SID system would however, begin to take on the role of a mediator when it began to interact with Faculty administrative staff. Due to limitations on the number of licenses academic staff were excluded from the SID system and this resulted in an asymmetric actor-network being established.

Students would post a query in the SID system which would be routed to Faculty staff. If there was a need for academic input the administrator would have to email the query

on to the academic who would email a resolution back to the administrator and the administrator would then email the student directly, even though it was possible to email directly from within SID. It was also possible for administrators to receive a SID query and only to use their personal email.

Many administrators noticed that some students would seek out the personal emails of administrators and would email them directly thereby sidestepping SID completely and through this means the email system became a component in of the mediation process and in doing so the email system betrayed the SID system undermining its role in the development of the actor-network.

Other factors that affected the development of the actor-network were the lack of a champion supporting the Faculty teams locally [A10 – 102] and in the eyes of the Faculty administrative staff, the lack of a clear rationale for the system over the use of email. These factors contributed to the partial destabilization of the system.

The implementation of SID changed the way that the team worked although the changes are not necessarily how the SID project team would have expected [A08 – 103]. For example, staff have not had time to think about how they need to work differently. Staff had been dealing with students via email but with the introduction of SID they use email and SID whereas the aim of the project was to reduce the use of email. This is likely to have been the result of poor implementation follow-up due to the project manager and other key members of the SID implementation group leaving at the (crucial) point where the system was introduced. Staff were left to their own devices to an extent in terms of the use of the system. The lack of a SID champion impacted negatively on the implementation.

5.6.6 The HUB and SID as Drivers of Organizational Change

The initial aim was to allow the HUB and SID systems to bed in over the first year to eighteen months and then to see what structural and organizational changes should take place in the light of experience [A09 – 66].

The team that had been planned to become the HUB team was viewed as a team that had not managed to develop a strong identity due to the staff changes and the loss of a key member of staff about a year previously [A09 – 87]. The move to the HUB was a way of firming up the team into a more balanced team [A09 – 95]. The process of change in the team was initially designed to allow existing relevant staff to choose the role that they felt best suited for, this allowed staff to find the best fit for their skills for example as back office or student facing [A09 – 121]. One of the most important parts of the HUB and SID systems was the communication links forged by these entities and other disparate parts of the university. This was identified a key factor in the success of the HUB and SID [A09 – 155]. To achieve this the teams would need to undertake a considerable amount of training including building an understanding of cross-university processes. Changes to the team structure were also partially emergent using a transitional year used as a method of testing various models and structures for the new HUB.

SID was a key tool to connect the HUB, Registry, Faculty and other teams and to coordinate activity across the organization [A09 – 153]. The institutional change strategy was a combination of a planned change programme and reflects By, (2005c) in terms of the change being driven by technological innovation and the change from a low to high skilled workforce.

A09 stated that in his view, students would not be bothered about organizational structures and reporting lines but that students wanted to be able to be dealt with professionally and that their queries would be seen through. This view aligns with the view of Faculty staff (outlined above) but there is a disjoint between this view and the use of SID which was seen by Faculty administrative staff as distancing them from students.

5.6.7 The Enrolment Strategy

This section examines the strategies adopted by the focal actor/s for enrolling the Faculty administrative staff with the aim of improving the student experience through the development of a new team to work in the student Hub and to adopt the virtual Hub the SID system.

The student Hub had been proposed in 2010 prior to the virtual Hub – SID – but due to the timeline for the completion of building works the Executive Board decided in 2014 to procure the SID system to start the process of acclimatising the Registry and Faculty administrative staff into a new way of supporting students.

The problem identified by Executive Board was poor student experience and poor frontline student services. The proposed solution was the development of a plan to construct a physical student Hub which would satisfy the stated objectives of the project. The project was validated by the Executive Board and most staff. The validation process resulted in the decision to deal with other related issues. These being the need to reduce the amount of student foot traffic to and from administrative offices and the need to move more services online and to improve communication between departments.

The solution was an agreement by Executive Board to begin a project that would result in the procurement of a cloud-based service-desk system that would enable students to post 'tickets' and for staff to deal with queries at a distance thereby enabling the objectives to be satisfied. One point of weakness was the unequal messaging around SID in terms of Registry staff and Faculty administrative staff. Later this resulted in only partial adoption of the SID system by Faculty based administrative staff.

5.6.8 Enrolment

This section investigates the progression from Intéressement to Enrolment the third moment of Translation. During enrolment, the focal actor or actors build and develop the alliances needed to bring the new heterogeneous networks of association into being, see page 86. The aim is for the human and non-human actors to be brought together in socio-material assemblages i.e. the student Hub and the SID systems to bring the students and relevant administrative staff into closer proximity. The aim of enrolment is the stabilization of the network so that it becomes resistant to the pull of other networks that might undermine the network that is being developed.

After its initial introduction the SID system struggled to become stabilized. The components of the system, the user interface, the users and the students were in

different states or preparedness for durability to take place, as stated above the Registry team were more willing to adopt the system than some staff in the Faculty teams [A11 – 74]. The simple issue of proximity between some administrators and students was enough to potentially undermine the implementation [A11 – 12]. As stated on page 87, any actor-network that is being developed can fall prey to the pull of other competing networks [A02 – 43] that can potentially undermine the newly forming network. In the case of the SID system implementation, the pull toward other existing networks was a real threat to undermining the developing stabilization of the network [A11 – 14, 15]. Faculty staff also had concerns about the potential merger of teams and their team identity [A01 – 55]. There was also a strong feeling of resistance to change [A01 – 67] and concerns generally about the proposed restructuring.

5.6.9 Mobilization: The Alignment of Interests

The SID system was soft-launched in March 2016. The rationale for this was that the system could be used by students during the post-exams period to limit the range of queries to exams related queries for limited period. The number of staff who would be expected to use the system would also be limited to Registry staff and some Faculty staff.

To start the process of adoption, a series of training sessions were provided to key users. The system was promoted to Faculty staff via the Hub Project Manager to Faculty staff via the three Faculty Managers who acted as mediators – being agents of change - by arranging for staff to be trained and briefed and trying to champion the SID system in their Faculty.

5.6.10 Destabilization: Forces of Resistance

SID is a cloud-based application supplied by RemedyForce and customised for the institution by a company called Column. SID links to the student record system and to Active Directory – see Appendix G Schema: Virtual HUB for a diagrammatic overview of the physical and virtual Hub's, logical and system models of the SID system. All enrolled students can access the system and post a query but due to budget restrictions the number of licenses was restricted to cover only Registry, Faculty administration staff and other student support team members [A08 – 51]. Applicants and alumni were not able to access the system, and neither were students who had interrupted their studies. This resulted in these categories of people needing to use the standard email system.

For many Faculty-based administrative staff there had to be a clear logic for the adoption of a new technology system and consequences for not using the system [A04 – 207], for example, thirteen years ago information technology systems including email did not exist at XXX University [A01 – 36] therefore administrative systems were paper based [A01 – 10]. Student coursework and exam papers were real objects that needed to be submitted to staff and physically recorded. The papers were then passed on to academic staff for marking and then passed back to the office to be handed back to the students with their mark [A01 – 22]. Concerns were raised by some staff about the implementation of technology systems in the team due to the view that systems such as SID had created additional work [A02 – 99] and others that technology systems made their work more complicated [A02 – 105]. Some of the issues relating to the implementation and adoption of technology including SID related to people's attitude and their individual response to change [A02 – 110]. It was accepted in the early stages of the implementation that SID should be used as the primary method of dealing with student queries over email, but staff had a high degree of familiarity with email [A02 – 157], SID had clashed with the way that people worked [A02 – 159]. Students continued to want to meet staff face-to-face [A02 – 161] and used SID, this resulted in some duplication of effort. There was a suggestion that the organization had not thought through the implementation [A02 – 165].

Faculty based users of the SID system had historically used email to communicate with students and their email addresses were published on the university web site in Department order, so students were able to find relevant staff when they needed to. An internal publicity campaign was launched advertising the SID system that included the SID email address to be used as the primary contact email. From the introduction of SID, a common comment by Faculty administrative staff was that SID was just another system to log into [A11 – 77]. Because everyone was used to logging into email as almost the first job of the day, an immediate barrier arose with regard the adoption of SID. Alongside the view that SID was just another thing to log into was the view from many Faculty-based administrative staff that there was no clear rationale for the introduction of SID. Another criticism was that SID as it was implemented resulted significant performance issues especially in relation to day-to-day work processes where Faculty-based staff felt it easier and quicker to continue to use the email system [A02 – 154]. The implementation of the SID system was considered disruptive in terms of how the administrative staff interacted with students and how they thought of their jobs [A02 – 159].

The rationale for the SID system was unevenly communicated from the IT management to users. The IT manager responsible for the procurement and implementation could elucidate the benefits [A09 – 166] but users were either unaware or partially aware of these. The vision of the SID system held by the IT manager was of a system that would be designed to follow a student query from the moment the query was submitted through to a specialist team that would be able to deal with the query end-to-end [A08 – 178]. The aim was for the SID system to become an intermediary, routing messages between students and relevant team members so that a resolution would be reached within an agreed Service Level Agreement (SLA) [A08 – 183]. This view of a coordinated team was supported by the senior manager responsible for the HUB who was keen for the HUB to become an interface between the students, Registry and Faculty administrative teams [A09 – 66].

The SID system had been envisaged by the IT manager as container for all communication between students and the relevant support teams and as such would in effect replace individual staff emails [A08 – 103]. Staff in the Faculty administration teams continued to use email with students after the implementation of SID but one Faculty team pushed out a message to students as an automated email reply telling them to use SID instead of email [A05 – 71]. There were differences in the way that administrative staff approached the implementation of SID across the Faculties with one seeming to take an early lead, possibly because they had the largest number of students and the largest number of SID queries [A05 – 73].

Staff in other teams took the view that the SID system would undermine relationships between staff and students that had been built up over many years. Team members felt that they had developed customer service skills that were better suited to dealing with students and the SID system would de-personalise how queries would be dealt with [A05 – 77]. This view was particularly strong with team members who had fewer students and where more intimate contacts had been developed. Where there were many students staff felt that it was more appropriate to move queries to SID, such as in the larger faculty [A05 – 73].

Faculty administrative staff had had the identity of 'paper-pushers' imposed on them by academic colleagues [A04 -147] and were generally considered to be carrying out essential but un-skilled work. When technological solutions began to be introduced into the workplace such as the VLE system, online coursework submission, direct exam mark entry by academic staff and email the identity of the teams began to change as the level of knowledge and skill increased and over time administrative staff began to

be viewed by academic staff colleagues as experts in data retrieval and reporting [A01 – 14], the use of the student record system, creating spreadsheets, data manipulation and the use of a wide range of technological systems.

Where there was a clear logic for the replacement of paper by an electronic system and there was a perception that there was a clear benefit to users, then adoption was more assured, and the technology would become Punctualized or Black Boxed, uncontentious and a part of organizational routine. This was the case with class registers that had been paper-based but about four years ago online registers were introduced. It took about three years for online registers to become the norm as staff realised the inherent value to themselves [A03 – 162].

Over time, paper-based coursework was phased out [A05] and there was a related significant reduction in the numbers of students needing to go to Faculty student service desks. Fifteen years ago, all students would be required to go to a Faculty student service desk but nowadays, numbers are down to 10 – 12 students per day. The nature of administrative work evolved from being a front-office role to being almost always back-office and intimately bound up with technology systems [A04 – 140]. This resulted in Faculty administrative staff taking on the identity of experts in the use of technology and essential indispensable members of academic teams [A04 – 144].

Chapter 6 Discussion

This chapter is a discussion on the case findings and how they relate to the literature review, the case, models of change, change strategy and ANT. The chapter develops ideas for a novel model of change that incorporates elements from both ANT and Fishers' Personal Transition Curve (see page 73).

The model provides a visual explanation of the tensions and dynamics involved during a strategic change operation and illustrates the potential pull away from the planned activity toward either an alternate change – either planned or unplanned – or the destabilization of the change so that it fails to achieve the planned outcome.

The model is designed to focus on alignment of interests and the imposition of identity in practical terms. The combination of ANT and Fisher's Personal Transition Curve allows the manager to reflect on the stages of the change process and to take a proactive stance in the management of the forces that might work against the change being successful.

6.1 Dynamic Forces of Organizational Change: Alignment of Interests and Imposition of Identity

The case highlighted how an existing network of associations – the existing Faculty administrative structure – became the subject of a significant change programme, the rationale for the change, the development of a new structure that comprised a physical student HUB and restructured Department facing administrative support alongside a virtual HUB the SID system.

The findings highlight the dynamic forces at work throughout the change process and how these continually have the potential to pull the change proposal off track. The initial scoping of the SID system was an immediate point of debate between the IT team and the Executive Board with tension between functionality, budget and implementation time.

The four moments of Translation are clearly identified through the analysis of transcripts and documents. One significant finding is how the implementation of the SID system was almost undermined through the combination of two different forces, the lack of a change champion who would see through the implementation of SID in the Departments and the lack of communication reinforcing the use of SID as opposed to the email. This

resulted in the continued use of email and in some areas the abandonment of the SID system. It was also clear from the interviews that the staff affected by the restructuring responded in ways that aligned strongly with Fisher's Personal Transition Curve.

The definition of the OPP (see page 122) that highlights actors' interests combines well with Fisher's phases of transition though a change process from the perspective of alignment of interests.

Figure 23 on page 173 has been derived from the literature review the analysis and summarises the dynamic forces that are at play during the process of organizational change. During the analysis it became clear that the process of Translation can be used both as a research method after the event and as a method for use during planned change to help managers and others involved in the change programme to better understand the impact of the change on interactions between the heterogeneous actors.

Aspects of the four moments of Translation were identified throughout the interviews and documents and emails collected throughout the organizational and technological changes see Table 11. From the analysis of the transcript data alongside consideration of Fisher's Personal Transition Curve and the four moments of Translation an overlay of the two concepts becomes possible. Figure 22 emerged from the analysis and illustrates the link between these modes. Figure 22 is incorporated into Figure 23 on page 173.

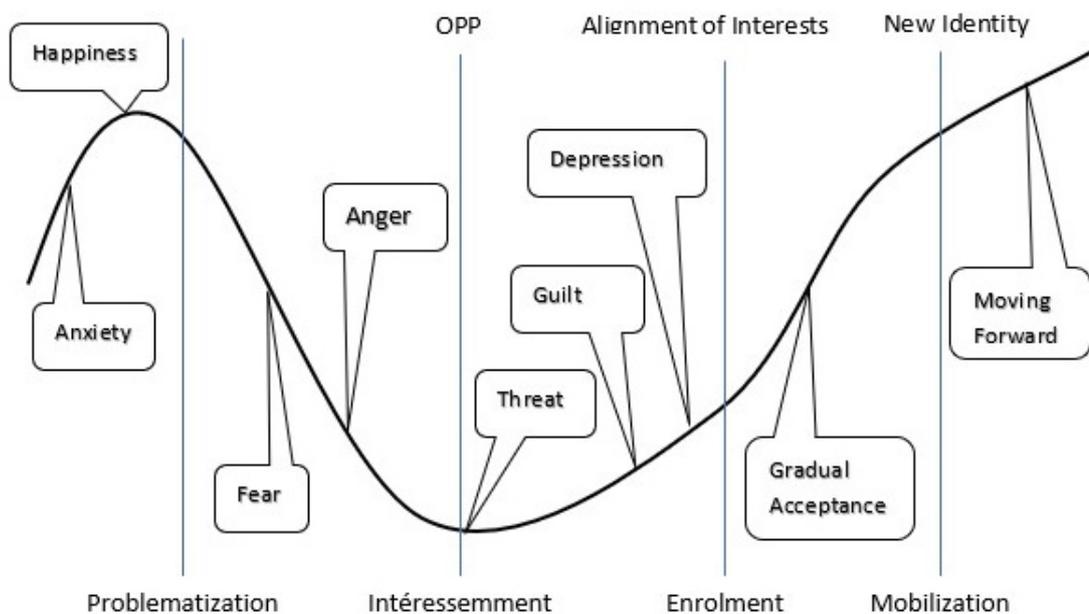


Figure 22 Fisher-Translation Curve, designed for this Thesis

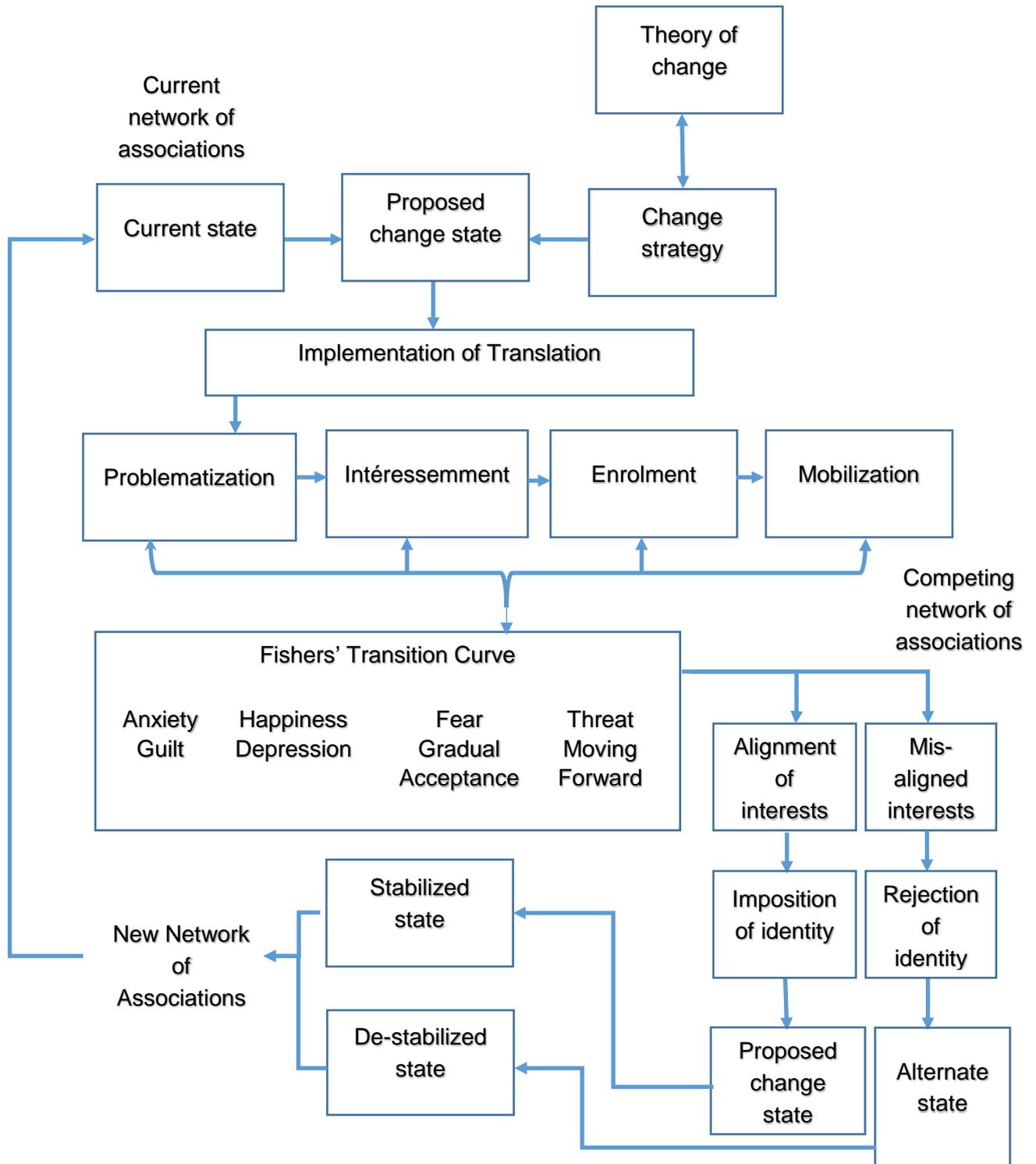


Figure 23 Model: Dynamic forces of organizational change: alignment of interests and imposition of identity

6.1.1 Dynamic Forces of Organizational Change: Alignment of Interests and Imposition of Identity - Explanation

Figure 23 emerged from the analysis and preceding work. There is no evidence in the literature that Fisher's Personal Transition Curve has been combined with ANT. Fisher's Transition Curve has though been reformulated and applied by management consultants for practical application but often as a method of self-reflection rather than as a proactive management tool. The model recognises the dynamic nature of change programmes and although it could be conceived of as a closed loop it represents the building of a network of associations and as such is a representation of a temporal moment where the actors relating to the network are being brought into play and the dynamics of the relationships between the actors are the focus of attention. It is possible for other networks of associations to be brought into the model at any time and for the network of associations that is the focus of the model to join another network and thereby failing to meet the aims of the change programme.

The Dynamic forces of organizational change model is built on three key concepts: organizational change, the process of Translation (imposition of identity and alignment of interests) and Fishers Personal Transition Curve (the management of identity change and alignment of interests). These three concepts are brought together to form a unique model that describes the dynamic interaction between actors involved in an organizational change setting. The aim of the model is to assist managers to better understand the process of change and the influence that organizational changes have on identity and how interests need to be aligned to the proposal for change if it is to be successful.

Often ANT is used as a method for analysing what has happened after the event but for the purposes of the model the Translation process is adopted as a tool to build a proactive method of understanding the phases of the change process and how these might relate to understanding and influencing the alignment of interests and the imposition of identity.

The model highlights the dynamics of the change process and demonstrates how the proposed change state can become misaligned if issues of identity imposition and management and alignment of interests are not considered carefully throughout the change process. The focal actor will need to consider both the emergent properties that could potentially become an alternate (unplanned) state or new network of associations, and the conditions needed to ensure that the proposed change leads to the desired new

network of associations. Once the new network of associations has been established it becomes the current state again or stabilized Black Box.

The stabilized Black Box is then potentially the subject to further changes, either planned as effects of other planned changes that destabilize the network of associations and draw actors to themselves.

The input to the model is the change strategy or plan that is informed by the relevant change theory. The change strategy and theory of change are checked against each other to ensure that the plan is bound to a sound theoretical underpinning. The current state is the target of the proposed change state and is an actor of the network of associations that includes human and non-human Actants.

Once the proposed change state has been approved and the components of the actor network identified, the Translation process is initiated. The Problematization phase is where the focal actor presents the proposal for change to those affected (and to the wider organization) so that the problem to be addressed is recognised as their own.

As part of the initial design of the change programme the OPP is defined and used as a mechanism for identifying the key actors and their associated goals or interests. These goals will to a certain extent be assumptions based on knowledge of the roles included. During the change programme highlighted in this case study Fisher's Personal Transition Curve was presented to staff during one of the consultation meetings. The concepts of the curve were introduced, and staff were asked to consider where they would plot themselves against the curve in relation to that stage of the change proposal. Although this could be considered a useful attempt to encourage staff to reflect on their position and to see that it is possible to move toward acceptance of the change, it was left to individuals to manage their journey though the transition i.e. there was no follow up and no subsequent mention of the model. The model suggests a linear process but in practice the process is likely to be cyclical at each stage. This is implied though the bi-directional arrows and the looping nature of the model.

Each phase can trigger an initial anxiety response (the first step of Fishers Personal Transition Curve) in those impacted by the change due to the lack of understanding and feelings of a loss of control. This is the first point of potential Translation failure. The focal actor needs to manage these states and then to begin the definition of roles for each actor. Depending on how well the process is managed the output of the transition curve is either an alignment of interests with the imposed identities adopted or misaligned interests and the rejection of imposed identities. Both outputs lead to a new network of associations one stabilized and the other destabilized – in relation to the

original goal of the change programme. The new network of associations becomes the current state once again and is then potentially subject to subsequent planned change or is destabilized and becomes part of a competing network.

Fisher's Personal Transition Curve operates at the micro-level of the organization, the individual. As explained earlier, (page 3.3.12), ANT subscribes to a flat ontology and is also concerned with relations at the micro level. ANT is also able to bring its focus up to the macro level in terms of its ability to describe how macro level objects come into being and are stabilized or black boxed. The combination of Fisher's Personal Transition Curve and ANT allows the manager to shift focus from the micro (individual/small team) to the macro, new team or organizational unit and to see how the components relate to each other and how their behaviour and interactions operate on each other to either create the intended outcome or to be undermined by micro scale issues.

By making use of the four moments of Translation, the Dynamic Forces of Organizational Change model shifts the focus of ANT from being a (usually) retrospective method for describing past events to one that is more forward looking and places the practice into a theoretical position.

6.1.2 Dynamic forces of organizational change: Alignment of Interests and the Imposition of Identity applied to the implementation of the SID system

The following section uses the model to illustrate the case study by placing the elements of the model into a table with the associated activities.

Model component	Activity
Theory of change	The One Professional Service consultation paper outlined the change approach, and this was closely aligned with Kurt Lewin's Unfreeze, Move, and Refreeze theory.
Change strategy	The strategy for the change is outlined in the One Professional Service consultation paper. This provided the context for the change, the environment and external pressures, the staff and team affected and the timeline for the proposal.
Proposed change state	Departmental administration teams developed out from the existing Faculty structure.
Current state	The Faculty and Registry administration teams the teams would be expected to change structure and working practices. This would include becoming closer to the new HUB and the adoption of new tools such as the SID system.
Implementation of Translation	The Translation process was implemented through the release of the consultation document. This set out the terms and conditions for the change and the approach to be taken.
Problematization	The problem statement was outlined in the One Professional Service strategy document which states: <i>"the primary function of professional services staff is to support students and academic colleagues as our primary stakeholders, a strong professional services function is pivotal to the success of an institution. Professional services staff are no longer 'administrators'."</i> (Appendix K SID Documents, 2,

	<p>SITUATIONAL ANALYSIS AND RATIONALE FOR CHANGE). The change programme proposed that there should be an amalgamation of teams and the introduction of cross team working. This would necessitate breaking down of the existing networks of association and the establishment of new ones. The entities (departmental and Faculty staff were identified, and new roles ascribed. These roles were outlined in documents and at a series of meetings.</p>
Intéressement	<p>The process of Intéressement was carried out through a series of consultation meetings focusing on the need for the restructuring. The process of imposing new identities begins at this point. These new identities were proposed in the consultation documents. At this stage Fisher's Transition Curve becomes a significant issue as those concerned will either accept or reject the proposed identities. During this period staff were encouraged to ask questions and to feedback to the consultation process.</p>
Enrolment	<p>Enrolment consists of the negotiations and discussions and various methods of reinforcing the process of Intéressement. In terms of Fisher's Transition Curve, this is the phase where resistance is likely to occur.</p>
Mobilization	<p>This stage is where others begin to speak on behalf of others. In this case this was achieved through the line management process whereby the teams involved in the Enrolment were assigned to Departmental structures and quickly began to adopt and develop the imposed identities.</p>
Alignment of interests	<p>The initial implementation was poorly managed, the staff in the Faculties were not aligned with the new process and for some time they stayed unaligned with the plan to implement SID [A09 – 121]. Subsequently because of the Faculty restructuring interests were aligned and the new structure and SID implementation were successful.</p>

Imposition of identity	The imposed identities were accepted and developed. This occurred very quickly once the Translation process drew to a conclusion.
Proposed change state	The new state – the proposed change state was achieved and the SID system which had initially not been engaged with was increasingly accepted as a useful Departmental tool.
Stabilized state	The new Departmental structures became stabilized once all vacant posts had been filled the SID system was gradually expanded to incorporate additional functionality for example the ability to handle Mitigating Circumstances claims confidentially – this was not part of the original project scope. This resulted in the paper-based process being replaced with a SID led electronic process.
New network of associations	The new network of associations was built around the new academic Department structure, the incorporation of the SID system as a link between Departmental administration teams, students and other professional service teams.
Mis-aligned of interests	The process almost failed to stabilize when the SID system was introduced, and it was unclear to staff why it was better or different to the existing email system. Although there was adoption and partial adoption in some areas this was uneven and in many cases the system was ignored, and staff continued to deal with students in the ways that they had always done so. At this point staff were still aligned with their Faculty structures. Without the organizational restructuring that resulted in the SID system becoming adopted it is unlikely that SID would have gained acceptance in the way it ultimately did.
Imposition of identity	New identities were initially resisted – the identity of a SID user. This changed when the organizational restructuring occurred, and staff accepted the Intéressement and Mobilization.

Proposed change state	The alternate (unplanned) state was avoided.
Stabilized state	The new Departmental structure was achieved and SID was adopted across the institution as originally planned. The SID system became black-boxed in terms of it becoming normalised as the method of communication that administrators expected students to use and students expected to use it.
New network of associations	The SID system began to be extended to include Mitigating Circumstances submissions and to receive queries from students that would have been made in person in Faculty offices. This resulted in a large reduction of student traffic to Department offices and the review of workloads, tasks and to further restructuring plans. The Departmental structures quickly superseded the Faculty structures and new relationships were established with central service teams who became closely aligned with the Department teams.

Table 11 Mapping of the organizational change to the Dynamic Forces of Organizational Change Model

Below in Table 12, the elements of Fisher's Personal Transition Curve and ANT's four moments of Translation have been mapped to references to the corresponding transcript points. This illustrates how the elements can be combined to provide an understanding of the situation at the different phases of the change programme.

Fishers Personal Transition Curve	Link to alignment and / or imposition of Identity	Instance of Translation	Transcript reference
Anxiety	Change is initiated but individuals do not understand how to behave differently in the new organization. Need to be able to comprehend the future.	Problematization Definition of the problem so that other actors recognise it as their problem	A01 – 4 A01 – 24 A03 – 41 A03 – 57
Happiness	Recognition that the old system needed to change, possible excitement of the possibility of improvement.		A02 – 22 A03 – 146 A04 – 77 A04 – 129 A04 – 156 A05 – 16 A09 – 98
Fear	Recognition that imminent change will impact self-perception, think that things will continue unchanged. Resistance to change can occur.		A01 – 67 A03 – 42 A03 – 155 A03 – 201 A04 – 78 A09 – 94
Anger	Perception of a loss of control, especially at the beginning of the change process but also at other stages. Related to Guilt and Depression.		A01 – 56 A01 – 61 A01 – 66 A03 – 138 A05 – 49 A07 – 15 A08 – 28
Threat	Imminent change triggers change in behaviour. Change challenges core identity. Who am I now? Resistance to change can occur.		Intéressement Devices through which actors detach and reattach to lock actors into the Problematization

Fishers Personal Transition Curve	Link to alignment and / or imposition of Identity	Instance of Translation	Transcript reference
Guilt	Realisation that the change has impacted who we thought we were, how close were we to meeting our core beliefs? Previous actions now no longer needed.		A01 – 26 A02 – 160 A03 – 64 A03 – 66 A03 – 73 A03 – 178 A03 – 202 A10 – 61 A10 – 66
Depression	Change induces a lack of motivation and confusion. Loss of sense of identity with no vision of how to proceed.		A01 – 32 A02 – 162 A02 – 164 A03 – 60 A03 – 178 A04 – 121 A06 – 178
Gradual Acceptance	Making sense of the new environment and our place within the change. Doing the right thing.	Enrolment The successful outcome or Problematization and Intéressement whereby more allies are attached	A02 – 28 A02 – 98 A02 – 147 A04 – 264 A05 – 91
Moving Forward	Starting to exert control and getting sense of self (identity) back. Active engagement returns.	Mobilization Maintaining the network by persuading the actors that their interests are the same as the Translator's	A03 – 59 A04 – 193 A06 – 16 A05 – 24 A05 – 29 A08 – 65
Disillusionment	Awareness that our values and beliefs are incompatible with the organization and motivation falls off.	De-stabilization Controversy / betrayal	A01 – 43 A01 – 65 A03 – 44 A03 – 49 A03 – 54 A03 – 205 A04 – 207 A04 – 217 A06 – 119 A07 – 25 A07 – 27 A08 – 53 A11 – 29

Fishers Personal Transition Curve	Link to alignment and / or imposition of Identity	Instance of Translation	Transcript reference
Hostility	Individuals continue to operate processes that have been seen to have failed. Processes are no longer part of the changed structure. New processes are ignored or undermined.		A01 – 51 A01 – 63 A03 – 109 A04 – 181 A06 – 124 A08 – 121
Denial	Failure to accept change and denial that there will be any impact on the individual.		A01 – 66 A03 – 93 A06 – 166 A11 – 14 A11 – 95 A11 – 89
Complacency	The final stage of the change process. People who have survived the process of change move into their comfort zone, loose interest in what is going on. Becomes the beginning of the process of change.	Stabilization / Black Box High level of convergence & strong irreversibility Punctualized network or Black Box	A01 – 58 A03 – 58 A03 – 82 A05 – 22 A08 – 101

Table 12 Fisher's Personal Transition Curve and the Process of Translation with Reference to Transcripts

6.1.3 Advantages and Disadvantages of the Dynamic Forces of Organizational Change Model

The advantages of the Dynamic Forces of Organizational Change Model are that it allows managers, leaders and others involved in an organizational change process to anticipate ahead of time how those potentially affected by the change programme might respond and to put in place mitigations and alternative plans in the event of challenges to the plan or there being significant resistance. A knowledge of the features of Fisher's Personal Transition Curve will provide insights to those involved in the change project regarding likely reactions to the plan and could contribute to consideration of the impact at an individual level. The application of ANT in the model assists the manager with plotting the stages of the change programme against the components of the change strategy. Interestingly there is a potential link between the four moments of Translation

and the phases of the project life cycle; initiation, planning (Problematization), execution (Intéressement), monitoring and control (Enrolment) & closure (Mobilization). It would be possible to overlay project lifecycle terminology in place of ANT terminology to reduce the barrier of using a technical language. On the other hand, the three principles underpinning ANT as outlined by Callon, (1986b),

“...agnosticism (impartiality between actors engaged in controversy), generalised symmetry (the commitment to explain conflicting viewpoints in the same terms) and free association (the abandonment of all a priori distinctions between the natural and the social)...”

Provides terminology that supports the change strategy by considering all actors equally, consideration of different perspectives and not making distinctions between human and non-human actors. These principles combined with the four moments of Translation provide a structure within which managers can develop an awareness of the phases of the change strategy. Another advantage of the use of ANT is its consideration of technological and social aspects of a situation. In many cases change programmes focus almost exclusively on the impact of change on human actors but non-human actors are also impacted by organizational changes and they can also influence change.

The disadvantages of the Dynamic Forces of Organizational Change Model are the need for the manager to learn additional terminology and to understand the details of Fisher's Personal Transition Curve and the four moments of Translation. The moments of Translation have the potential to cause significant issues in that the philosophy of ANT and its practical application can be very difficult to understand and the concepts of human and non-human agency can be especially problematical. Using ANT as a planning tool could be considered as undermining the essence of ANT which has resisted formularisation (by some at least) and being used as a template that can be applied in different circumstances.

ANT is a methodology and a theory (Walsham, 1997), (Mitev, 2009), that has often been used as a lens through which to investigate information and other technical systems. The main output from an ANT analysis is usually a thick descriptive account of events that occurred in the past.

ANT has primarily been used as a method of analysing situations after the event using the dictum 'follow the actor'. The main thrust has been that every situation is different and there should be no separation of humans and non-humans or a priori judging the outcome of the event. One of the findings of the research project is that different actors perceived the implementation of the SID system in different ways, for example as a way of assisting them in their role, improving services to students, reducing the need for

students to go to physical locations, improve the results of customer surveys and reduce costs. These issues represent the variety of potential alignments that can be brought to light through the use of ANT (Mitev, 2009).

ANT has been criticised by a number of authors for being problematical in a number of ways, mainly for not being an explanatory theory and for being overly descriptive (Heeks, 2013). ANT has been criticised for not always being able to follow the actor (Mitev, 2009) and for potentially not having a clear boundary leading to an ever expanding cast of actors. The challenge for the model is to take the core components of Translation and to apply them at the time that events are occurring during a change programme. Taking account of non-human actors and Actants also poses a significant challenge especially in terms of alignment to the new network of associations. One of the key challenges for the model is how to operationalise the four moments of Translation so that they can be applied in practice especially in relation to the agency of humans and non-humans.

In many cases the approach of researchers and practitioners is to separate the material from the social (Martine *et al.*, 2016), for example to deal with organizational change as a priori a human relations issue and technological change as a technology change. This is where ANT can potentially bring the two strands together (Martine *et al.*, 2016).

The need to bring the technical and social together is exemplified in an email from the IT manager regarding the restructuring complaining that there has been no consideration given to the impact of human centred organizational change at the expense of not at the same time considering the needs of or aligning IT systems (Appendix M Email from IT Manager, page 294).

6.2 The Use of Convergent Interviewing

CI is an underutilised method for gathering qualitative data. The reasons for this are the technique tends to be resource intensive – often requiring two researchers per interview, the time spent carrying out interviews can be extensive, the time taken to analyse data collected and the volume of data collected can be overwhelming and difficult to handle. There are however many advantages to the use of the technique including, the ability to gather data where there is little understanding of the issues – to generate new thinking, ideas and questions, to be able to focus on specific areas of interest, to be able to gain confirmation and triangulation of data as the data collection is progressing. The technique is closely associated with action research and is useful in an organizational setting for gathering feedback and rich data during project implementation. For this project, the technique allowed for the gradual refinement of questions over a series of interviews beginning with semi-structured questions to structured questions and led to a roadmap for associated document collection and analysis.

The CI process worked well in conjunction with ANT and was particularly well-tuned to the follow the actor dictum. The technique works well as a bottom-up approach and there is scope for sense checking via the reference group. The technique as used in this research project allowed for a variety of perspectives to be investigated which allowed for a comprehensive picture of the events to be built up. The data collected is highly contingent on the situation and is therefore not generalizable to other organizations. CI was shown to be a flexible and scalable method for investigating organizational change.

6.2.1 ANT as Analytical Lens

This study made use of theoretical resources from ANT primarily as described by Bruno Latour in his book *Reassembling the Social* (Latour, 2007), Michel Callon's paper *Some elements of a sociology of translation: domestication of the scallops and the fishermen of St Brieuc Bay* (Callon, 1986a) and related texts. These texts represent the tradition of ANT that has been applied to a wide variety of research domains but primarily in to tracing and researching Information Systems and how these are entangled with human actors.

ANT has been used as a methodology for investigating issues relating to identity, identity construction (Michael, 1996) and multiple identities (Mol, 2002). This thesis uses these and other related publications as the theoretical resource for discussions relating to identity due to the close relationship that these authors have with the canon of ANT.

Since its development in the late 1970's and early 1980's ANT has been used as a lens through which to analyse and describe the implementation, adoption, rejection, project failure, system stabilisation and use of information technologies in organizations (Tatnall and Gilding, 1999), (Cresswell *et al.*, 2010), (Andrade *et al.*, 2010), (Shim and Shin, 2015), (Troshani and Wickramasinghe, 2014). ANT provides relevant concepts to help understand how and why technologies are or are not adopted in the organizational setting (Wilson and Howcroft, 2002).

ANT is often used in research settings and makes extensive use of the case study methodology where an extensive range of evidence is made use of for example, participant interviews, ethnographic field observation, and collection of physical artefacts such as documents, physical objects and analysis of data.

ANT is described by Michael (1996) as part of the Foucauldian tradition of theorization of power and encompasses issues of identity construction and how identity in the organizational setting constitutes to the creation of roles that serve the needs and goals of others, who might be micro or macro actors. ANT has been identified as a theory that deals with concepts such as performativity, temporality and place.

ANT has been adopted and used in an increasingly wide range of contexts especially regarding the adoption of technology. ANT is especially useful in situations where power, identity, political intrigue, and negotiation come into play. ANT is especially sensitive to the relationship between human and non-human actors (technical and other artefacts such as machines, computers, software, cat doors, automatic door openers, jet aircraft, stone tools microbes and animals, amongst other things) and how the agency of both humans and non-humans is an effect of heterogeneous networks of association.

Examples of the use of ANT in such settings include, technology and sociology (Latour, 1991) an IT mediated human resources project that examines the impact of technological and organizational change across a Mexican multi-campus university (González, et al, 2012), the development of shipping routes between Portugal and South America during mediaeval times and how heterogeneous elements such as winds, tides and ship design led to success even though the odds of success were not guaranteed at the time (Law, 1984), the development of a city centre train system in Paris and how the combination of technology, politics and city planning undermined the project and through the explanation of the project non-human technological artefacts become items

of sociological rather than technical interest and are central to the narrative (Latour and Porter, 1996).

Other related areas include the discovery of pasteurisation and how non-human actors – microbes – can be central to an analysis of scientific discovery (Latour, 1988), the design and development and failure of a jet fighter aircraft described through multiple perspectives including that of the aircraft as a key actor (Law, 2002), innovation of information systems and worker identity (Linde *et al.*, 2011), the ontological politics of the British milk trade in the 19th century (Nimmo, 2008), the development and implementation of an innovative administrative computer system for the management of Stockholm city as European capital of culture and how important artefacts are in the process of organizing, (Porsander, 2002), the strategic management of technology and the need to consider non-human technological entities are produced or performed into being (Tryggestad, 2002).

Recently archaeology has become an area of interest in terms of ANT. For example, ANT has been used to trace how human and non-human (technological and other artefacts) are intimately woven together to create sociological settings and how human and cultural evolution are linked and how the entanglement of humans and technology has contributed to the development of language and technology (Hodder, 2012); (Ambrose, 2001). Marine archaeology and social-archaeology have also made use of ANT as a lens for investigating how archaeologists could move away from the bifurcation of human/non-human and to consider ‘things’ (or non-humans) as equal to human actors (Dolwick, 2009).

The use of information and communication technologies (ICT) in museum management and the relationship between humans, to works of art, the public and technologies in terms of being part of a mediation process (Kéfi and Pallud, 2011). Managing tobacco misuse through an analysis of alliance building managing change, gaining public and institutional acceptance (Young *et al.*, 2012), and importantly in the domains of information technology research, (Cresswell *et al.*, 2010), (Elgali and Kalman, 2010), (Linde *et al.*, 2011), (Tatnall and Gilding, 1999), and identity construction through the development of heterogeneous networks of association (Michael, 1996).

ANT is particularly appropriate as a method for working with identity. The main ANT concept of Translation is concerned with identity construction, imposition and definition. According to Michael, (1996) describes how entities have identity imposed on them

(Intéressement) and how identities are subject to stabilization (Problematization). This is described as one actor raising issues about the identities of other actors. This is particularly relevant in this study and why ANT is relevant in an organizational setting where over a period of years, actors' identities have continually been redefined and new identities imposed and stabilized because of organizational change and the introduction of technologies. In the case of this thesis the key actor is a software product that is in the process of redefining and imposing new identities of human actors. The whole process of Translation is one where identities are transformed or imposed, and the context of organizational and technological change is one where identity is frequently redefined and imposed often as a result of strategic plans.

In the book *The Body Multiple* (Mol, 2002), Annemarie Mol uses the medical condition arteriosclerosis as a vehicle for examining how medical professionals in different roles impose different identities on individuals depending on the focus of their job role. For example, the nurse imposes a patient identity, the phlebotomist imposes the identity of blood sample provider, and the surgeon imposes the identity of a type of arteriosclerosis.

In a similar way, people in organizations have multiple identities depending on their position, role and the networks that they are members of. Annemarie Mol also points out that identity can be constructed through enactment. Enactment is carried out through conversations, documents, meetings, interviews and gestures. The single condition of arteriosclerosis is multiple depending on the context and the person who has a role in dealing with it. Mol uses word to enact as a replacement for the words performance and construction where performance implies the alternative reality of the backstage area. Enactment brings with it a multitude of actants human and non-human working together in a network of associations. In the example given by Mol these include, amputated legs, microscopes, blood, formaldehyde, knives and slides.

Past studies using ANT have shown how the introduction of information technology into the organizational context has either been adopted or not and shown that users often adapt technologies in ways that were not expected by those designing and implementing systems. ANT provides a framework for tracing, analysing, describing and theorizing how technological and organizational change strategies impact on what Michael (1996) describes as the construction of identity.

This study is concerned with how individuals relate to their team and other intra-organizational teams, how the introduction of technology into the team setting and how

changes to team structure impact on the team and how over time they either become stabilized or destabilized.

Based on this overview and the cases outlined the breadth and depth demonstrated is the reason why ANT is a suitable theoretical and methodological practice for investigating how identity and constructed by groups and for groups. The question then becomes will the team adopt the imposed identity?

Using ANT as a method to elicit the answers to the research questions requires the collection of rich qualitative data. Traditionally ANT has made use of case studies for this purpose with Callon's, (1986b) case study of the scallops and the fishermen of St. Brieuc Bay being one of the most cited. Relevant to this study, the four moments of Translation are used as part of the model combined with Fisher's Personal Transition Curve.

1. **Problematization:** what is the issue that requires a solution? Who are the relevant actors? Can spokespeople be identified who can represent specific groups? This relates to Fisher's Personal Transition Curve in terms of Anxiety, Fear and Anger.
2. **Interest:** can these relevant actors be interested in the solution to the issue? What 'terms of commitment' are there, and/or how can they be convinced that their own interests will be aligned and served? Can the focal actor get the actors to accept their new identities? Relevant actors will be identified through the case study. This relates to Fisher's Personal Transition Curve in terms of Threat, Guilt, Depression and Gradual Acceptance.
3. **Enrolment:** how can these common interests be converted into potential associations? Do the different actors also accept their role, or can they be geared to the available resources? Relevant actors will be identified through the case study. This relates to Fisher's Personal Transition Curve in terms of Gradual Acceptance.
4. **Mobilization of allies:** is there wide support for the expected outcomes? Do the spokespeople represent their respective constituencies effectively, or how can the actor-network association be embedded in a wider setting? This is a critical issue for the organizational and technological change projects. This relates to Fisher's Personal Transition Curve in terms of Moving Forward. Adapted from Boelens (2010).

Using the questions posed above, provides the manager with the ability to use the four moments of Translation as part of the change programme rather than as a research methodology.

6.3 ANT and Organizational Research

The use of ANT in this research project has provided a lens through which to examine the data but also as a method for providing structure and a framework. ANT and CI were found to be compatible in terms of ANT's underlying philosophical stance of generalised agnosticism, generalised symmetry and free association. ANT has informed the research throughout the data collection and guided the process of analysis. Higher Education Institutions are complex entities with many dynamic forces contributing to the movement of resources and influencing change and technological development and ANT is well suited as a methodology for investigating technology implementation in organizations (Tatnall and Gilding, 1999), (Baron and Gomez, 2016), Sarker, Sarker and Sidorova, 2006), assert that business process change particularly within the field of project management is well suited to the application of ANT both as a methodological tool and as a tool that has explanatory (theoretical) capabilities.

The strength of ANT is its focus on the actor, human and/or non-human and especially the actors' transformation from one state to another and its focus on power as an effect of network associations. The significant impact of ANT in this study has been the use of Holstrom and Robey's Negotiation Loop and how this can make explicit the phases of change processes and how a planned change can be sent off-course due to conflicting and competing networks of association. This study has focused primarily on the process of Translation and the associated elements, of Problematization, Intéressement, Enrolment and Mobilization (Callon, 1986a). The concept of the Negotiation Loop has been extended in this study from that originally described by Holstrom and Robey (2005). The Negotiation Loop has some similarities with the spiral model of Translation described by Sarker, Sarker and Sidorova (2006), who extend the use of ANT in an organizational setting.

Taking an ANT perspective has allowed for an investigation into the dynamics between technical and human actors as they form alliances and as they build social processes and structures. What is clear is that XXX University has made use of a range of standard change models for example as Kurt Lewin's unfreeze, move, and refreeze and the Kübler-Ross stages of death and change model. An awareness of the impact of

networks of association and the process of translation and negotiation loops would be beneficial to planners of organizational and technological change.

6.4 Organizational and Technological Change Adoption

The use of ANT and CI and the subsequent data analysis enabled the investigation of the adoption of the SID system and to look at what factors contribute to the success of a change programme in an organization. The key to the success of both changes centred not just on the alignment of interests but being able to determine accurately the interests of various actors. From this research, it has become clear that actors' interests are not always explicit or known to the actors themselves until circumstances change and there can occur a sudden unexpected alignment. Awareness of the phases of the negotiation loops could inform manager's decision making and create an awareness of the stages of change and could allow for continuous reflection on the interests of actors. Keeping the focal actor aligned with the change processes is key to the success of the change process.

Chapter 7 Conclusions

7.1 Introduction

This chapter reviews the aim and objectives in the light of the literature review, research design, research methods and analysis and identify whether the aims and objectives were delivered and summarises the contribution of this research project to knowledge. The chapter identifies how the outcomes of this project can be applied to change projects in other HEI's and how the outcomes could impact on organizational policy and practice.

7.2 Aims and Objectives

This research project began with a rationale and personal motivation for carrying out the study. The aim of the research project was to investigate through a single case study, the impact of organizational and technological change and whether the interests of the key actors are aligned to the change outcomes whether staff adopt new identities imposed on them. The objectives of the study were:

1. To investigate whether the actors affected by the proposed organizational and technological changes interests are aligned with the outcomes of the change programme.
2. To investigate how and why organizational and technological changes have impacted on and affected perceptions of team identity amongst administrative support team members.
3. To identify and understand the nature of any identity changes in the administrative support team resulting from organizational and technological changes.

The evidence gathered through the interviews, document collection and observations supported the aim that the actors affected by the change programme and the implementation of the technology did become aligned to the new structure and did adopt the new identities that had been assigned to them. In terms of the objectives the following conclusions were drawn:

1. To investigate whether the actors affected by the proposed organizational and technological changes interests are aligned with the outcomes of the change programme.
 - a. The evidence collected confirmed that the actors affected by the change programmes found it difficult to envisage how the proposed changes

would affect them. Many staff members had been in their current Faculty team for many years, but several staff felt that their primary alignment was already with an academic department [A02 – 63]. This enabled staff to align into the new structure once the Faculty structure was removed without a lot of difficulty.

- b. In terms of the technological change programme several obstacles to adoption were identified including project leadership, adoption of the system by students, training needs being met and communicating the benefits of the system to users see section 4.5.
 - c. Due to the initial poor implementation process and lack of focus on the benefits of the system, staff continued to use their personal email instead of adopting the SID system, see section 5.6.10.
 - d. The SID system was ultimately adopted when the new department structure came into being and staff took ownership of their departmental SID queues. The further development of the system to incorporate additional functionality helped with the process of adoption as staff began to recognise the benefits of the system, see section 5.6.9.
 - e. The main conclusions drawn from the interviews and observations is that to increase the potential for adoption of a new technology system it is necessary for there to be clear leadership, clear and continuing communication about the benefits of the system and the provision of ongoing training. Aligning the interests of the system with the interests of the new organizational structure also contributes adoption. The technology system needs to become incorporated into the network of associations as an Actant and needs to become indispensable and stabilized, see section 3.3.7.
2. To investigate how and why organizational and technological changes have impacted on and affected perceptions of team identity amongst administrative support team members.
 - a. The interviews with staff uncovered evidence that there had been significant changes to the perceptions of identity as a result of the introduction of technology. Changes to perceptions of identity related to how others outside of the teams perceived staff in the team. The introduction of the SID system changed the nature of the work that administrative staff were carrying out and this in turn changed their relationship with students [A03 – 57] & [A02 – 42]. The introduction of technology has over time changed the perception of the teams from

being paper-pushers to becoming indispensable to departmental staff and experts in their own right [A04 – 150]. The SID system shifted the relationship between administrators and students from a personal one to one at a distance that was mediated by the SID system. Some staff recognised the benefits of SID in terms of being better able to track and close queries but still felt that the system had significantly affected the perception that they were able to provide a dedicated personal service [A11 – 16].

3. To identify and understand the nature of any identity changes in the administrative support team resulting from organizational and technological changes.
 - a. The introduction of technology systems including SID and the organizational changes were found to have changed the identity of the administrative teams. The nature of these changes mainly concerned a gradual upskilling of the teams from dealing mostly with papers to using a range of computer systems. Other actors implicated in the changes include texts such as re-written job descriptions [A09 – 47] which directly changed the nature of specific jobs, the introduction of technologies that have led to an increase in specialisation [A11 – 28], the nature of technology specifications and associated supplier contracts [A07 – 13] and how these heterogeneous actors influence the final product, its functionality, how it fits with the organizational structure and whether users are convinced of the benefits. These elements lead to changes to how work is carried out and the perception of roles and how they are identified.

7.3 Literature Review

From the review of the literature several themes became clear. These include, the speed and frequency of change in organizations being perceived as greater than at any time in the past, see section 3.2, the need for organizations to respond to external pressures, legislation and changing expectations. These factors have influenced decisions around organizational structure, the incorporation into HEI's of a customer service ethos and standards among several teams especially in libraries and ICT support. These standards are now being incorporated into other professional service areas of HEI's as student expectations change in relation to the level of fees. The literature review identified a number of change models and highlighted Fisher's Personal Transition

Curve as particularly significant. Fisher's Curve was used by the Registrar in XXX University to highlight how organizational change can impact people and how it can be used as a tool for helping individuals through the stages of change.

ANT was identified as a suitable method and theoretical framework for sensitising the researcher to the situation and as an aid to answering the research questions. The main advantages of ANT in the context of the research project have been its ability to trace events over time, help to identify relevant actors and their interests and to provide a clear conceptual framework for the analysis of data. ANT provided a vocabulary for describing the changes and enabled the researcher to identify the main phases of the project in terms of the four moments of Translation. The issue of identity as an emergent property of a network of association was highlighted and this provided a way of working with identity change and imposition so that it was possible for relevant interview transcripts (APPENDIX J) to be identified. The issue of non-human agency was useful for identifying how the non-human elements influenced the re-structuring process and the implementation and adoption of the SID system.

It became apparent through the literature review and the research project that Fisher's Personal Transition Curve, page 73, had the potential to be amalgamated into ANT's four moments of Translation, page 85, and that the combination of the two models, page 172, provided a powerful tool for managers to better understand the relationship between the points of change and the psychological impact on individuals. The impact of the changes on identity formation can be considered to be emergent property of the actor-network, page 187.

As a result of carrying out the literature review, section 3.4.1, page 102, it was possible to see that the Faculty-based administration teams identified with their faculty teams but there had been a nascent identification/alignment with departments for many years prior to the restructuring proposal and when the opportunity presented for staff to become part of a departmental team staff overwhelmingly aligned to the new structure. This realignment to the new departmental structures created a new issue of in and out-group competition, page 96 and page 130.

The literature review was important as a sensitising process that led to the development of the model in section 6.1, page 171 and enabled the researcher to make connections across existing theoretical concepts and how these are applied in practice and can be combined in creative and innovative ways to develop new ways of thinking for example Figure 22.

Two of the core concerns of ANT are the formation of macro actors, section 3.2.1, page 67, and the stabilization of networks of association. This research project was through the application of ANT to trace the development of the new organizational structure and the SID system from initial idea, Executive Board proposal, the restructuring plans, implementation, training and internal marketing of the changes. Through the investigation it became clear how micro actors are brought into being through a process of discourse, inscription and action (Cooren, 2015). The SID system was found to have begun as an objective to satisfy the changing expectations of students and over time moved from a proposal to implementation that involved the system being seen as a series of micro actors – technological components including cloud storage, user interfaces, the computer network, messages, training sessions, posters, emails and computer hardware. In this form it was difficult for users to envisage the system in use.

The challenge that the organization faced was to bring the SID system into a stabilized form so that it would be difficult for it to be undermined by other existing or alternative networks of association. For a period it looked as though existing the existing email system would contribute to a failure of the SID system. Stabilization was found to have taken place once the department teams were in place and the SID system became the accepted communication tool between students and staff.

Once the SID system had been in use for some time the individual components and the history of its inception started to be less of an issue and it entered a period of stabilization or Punctualization, section 3.3.9, page 92. At this point the system became a macro actor or a black box where the micro components making up the system were referred to simply as SID.

The use of ANT as an approach to opening the black boxes of macro actors was found to be very powerful and a useful aid to the understanding of how and why networks of association came into being and how the emergent properties of identity and alignment came about.

7.4 Research Design and Methods

The choice of a research design is a complicated issue and rests on several issues. These include, the research problem, the nature of the aims and objectives, the research questions, access to subjects, willingness of subjects to participate in with a research approach, personal preference, previous experience and the nature of the philosophical stance taken to the research. For this project a qualitative research approach was selected that made use of a range of data collection techniques, section 1.6.2, page 32.

It was decided to use ANT as an analytical lens and as a framework for guiding the collection of data. The ANT approach tends to be a case study-based approach resulting in a thick description. The case study approach often makes use of a range of data collection techniques.

The case study approach often leads the researcher to collect large amounts of rich data from across the population of interest and to triangulate the data from a range of sources such as documents, existing research and observation. For the collection of data, the CI interviewing technique was selected because of its potential for reducing bias using a reference group and through the design of questions based on previous participant answers.

For this project the CI technique was found to be a suitable method of generating a significant amount of data from a relatively small sample. The combination of interviews and document collection and observation led to a collection consisting of a large number of documents and sound recordings that needed to be transcribed.

The approach to the volume of data collected was to develop a series of Contact Summary Sheets, Appendix E Contact Summary Sheet, page 234, which led to the development of a coding structure, Appendix D Start List of Codes, page 218 and this enabled the development of a series of NVivo codes and related themes, section 5.2, page 142.

The CI data collection approach was found to be a useful technique for collecting qualitative data, but it was found that remaining in line with the approach outlined by Dick (1998) posed a number of difficulties. These included establishing an effective reference group, being able to process the volume of data in a timely way prior to the next interview and identifying convergent themes in the data. In one case the participant interview resulted in almost no useful data and in others the amount of convergent data was limited. It was determined that these interviews were the result of participant selection – related to the effectiveness of the reference group to suggest useful participants and the design of questions especially where the answers from the previous interviewee might not relate to the work of the next interviewee.

Overall though the approach worked well especially when triangulated to documents and observations.

In terms of ANT and the dictum of follow the actor, section 2.3, page 49, another challenge was how to interrogate non-human actors. The approach taken in this project was to identify who speaks on behalf of the non-human actor (Callon, 1984), SID in this

case and to look for situations where the system was obstructing what human actors had intended it to do, for example through reduced functionality or not being able to function in the way that had been expected. Interrogating non-human actors is a significant challenge for the researcher working with ANT and from the experience of this project the identification of key non-human actors, their anticipated roles, who speaks on their behalf – humans, reports, data, etc., should be planned into account during the initial research design. Keeping to the core ANT approach and principles, section 3.3.6, page 83, can also present challenges to the researcher, for example remaining impartial towards all actors involved in a project under consideration, where identities are being negotiated or are not fixed the analyst does not fix the actors identities prior to the end of the process, impartially and does not permit the favouring the human over the non-human and the analyst leaves all *a priori* distinctions between what might be considered natural and social actions, rejecting boundaries that might separate them, page 83.

It is necessary for the researcher to keep these principles in mind at all times and also to ensure that these are incorporated into the research design.

7.5 Contribution to Knowledge

This research contributes to knowledge particularly in the fields of organization studies and organization change. Several insights have been made as a result of carrying out this project that advance the practice of using ANT in the field.

ANT has provided a framework for planning the project, a method (or roadmap) for tracing the development of the organizational and technological change and a vocabulary for describing the distinct phases of the change programme. The following areas provide specific areas where a contribution to knowledge has been made.

7.5.1 Socio-technical approach

ANT does not subscribe to technical or social determinism (social changes attributed to technical change or social interactions) but to a combination of these known as the socio-technical approach. From the conception of this project it was defined as a socio-technical project due to the combination of social change (organizational change) and technological change (the implementation of SID). The institution planned the changes as two distinct but linked change programmes with the expectation that the organizational change would be a management/Human Resources led activity and the implementation of SID a technical ICT led project.

Through this research project it has been determined that there is a critical and complex link between concurrent organizational and technological change programmes which needed to be considered throughout the change process as each project, although separate strongly influenced each other. ANT was instrumental during this project in tracing and uncovering the link between the projects and how these dynamically interacted with each other.

The advantage of ANT was to provide the researcher with a sensitising framework that provided a vocabulary for describing the dynamics of the changes, the four moments of Translation. The four moments enabled the researcher to organise the data during and after the data collection process into distinct phases, section 3.3.7, page 86 and to identify the key actor (OPP), section 5.6.3, page 159.

Considering the actors as equal allowed the researcher to approach the change programme as a neutral observer without preconceptions, section 3.3.7, page 86, regarding the outcomes and to understand the influence of the SID system on the restructuring and the restructuring on the implementation of SID, section 5.6.5, page 163.

7.5.2 Agency of Non-Humans Equal Participation in the Network

ANT was found to be useful for providing the researcher with a way of discovering how non-humans affect human actors within the developing network of associations. The SID system and related elements were seen to be highly influential in terms of what they permitted users to do from the design of the interface to the functionality to the workflow and how the system interacted with the range of human users. ANT was particularly useful for uncovering the reasons for the potential undermining of the SID system, where email remained the primary communication medium and how SID was seen to be just another system to log into that was less efficient than email. This view was strongly supported by interviewees even though there were significant benefits to the SID system as outlined by ICT Manager. ANT enabled the interplay of technical and social issues to be brought to the fore.

ANT enabled the researcher to consider the agency of the non-human actors not as actors able to make independent decisions but as elements of a network connected to other elements that needed to interact with each other. The limitations of the SID system were identified using ANT during the interviews with the ICT Managers and the

Registrar. Following SID through the process of implementation enables the researcher to appreciate the influence of non-humans on other non-humans and humans.

7.5.3 Interaction of Humans and Non-Humans to Create Meaning and Inscription as a Form of Agency

During the research project the use of ANT allowed for the researcher to identify how meaning is created between humans and non-humans. Specifically, meaning came about through the interaction between humans and documents (inscription), section 3.3.10, page 93, where ANT led to the discovery of a range of significant documents including design specifications, discussion documents and meeting minutes that led to actions being taken to design and build the SID system and to the implementation. From the implementation, training materials and a number of emails and posters, Figure 14, page 125, that informed students and staff of the existence of the system and led to its initial uptake and use. ANT considers all of these elements as important in the discovery of the network and they all have equal standing in terms of their status in the network. Without these non-human elements there would be no action or implementation. Questions about the SID system had been dealt with through email conversations and training materials. Over time those using the SID system become familiar with the interface and its operations and understanding was developed. Although it could be obvious that these non-human elements contribute to the implementation, ANT brings these issues into the forefront of the research process so that they are not ignored, or assumptions made. Recognising the influence of non-human elements in a network allows for a holistic perspective to be taken rather than a partial view where either social or technical influence are brought to bear.

7.5.4 Micro to macro

ANT is a powerful tool for identifying the development of macro actors. Although macro actors are not considered to be anything more than amalgamations of micro actors that have come together and have formed a black box, section 3.3.12, page 95, ANT provides through the process of Translation a method for identifying the individual actors or elements that need to come together to form a macro actor or Actant.

The influence of micro elements of the network can be clearly identified using ANT for example in this case the SID system was identified as the actor to follow and through the collection and analysis of documents and interviews the individual elements that make up the system and their importance were identified.

The move from micro actors to macro Actant was important because there was an implication that the new network was moving toward stabilization.

7.5.5 Identity Formation as an Emergent Property of the Network

ANT enabled the researcher to identify the formation of identities as the teams were aligned with the new departmental structure. Identity formation was a central plank of this research project and using ANT to trace the emergence of existing and new identities was found to be very effective. Being sensitised to the process of Translation and the possibility that identities would be found to be emergent properties of the formation of networks was useful in identifying that staff were concerned about their identity and how this was affected by changing technologies, changes to structures and the introduction of the SID system.

Through the interview process, it became clear that the SID system had the potential to significantly change how staff perceived themselves and each other. This was mainly about the reduction in individual student / staff contact and SID being introduced as an intermediary. As the departmental structure was formed it was found that new identities were adopted, and the existing Faculty associations dropped. Being aware of emergent properties of the formation of new networks is one of the key strengths of ANT in practice.

The use of ANT to trace changing or imposed identities is supported by Michael (1996) especially where the identity imposed, results in the performance of new activities and the routinization of work.

7.5.6 Alignment of Interests and Emergence of New Structures

As with the formation of identity, ANT allowed for the tracing of the realignment of interests as actors began to align with the new structure and to adopt the SID system. The adoption of the SID system was the result of the alignment of staff with their assigned department after the disbandment of the Faculty structure.

Moving from the initial idea, to design and implementation for the SID system and the restructuring process allowed the researcher to identify the emergence of alignment over time. The interplay between human and non-human actors was an important consideration, for example the discovering how staff in departmental teams become

associated with their SID queue, which contributed to the alignment of the teams with the department and its students, section 5.6.5, page 163.

Although there were moments where the SID system was at risk of being undermined by the continued use of email but also due to a lack of engagement the system did begin to be adopted and became part of the new structure.

7.5.7 Actor-Network Theory and Fisher's Personal Transition Curve

Figure 22 Fisher-Translation Curve, designed for this Thesis, page 172, provides an overview of the combination of the four moments of Translation and Fisher's Personal Transition Curve. The combination of the two could allow those involved in change programmes to better understand the relationship between the sociotechnical changes and the impact of the changes on teams and individuals as the change moves through the stages of the change programme. Figure 22, page 172, links to Figure 23, page 173 and illustrates the decision flow through the change process. Figure's 22 and 23 offer those managing change programmes the ability to plan the stages of Translation. At each stage, a related set of responses can be triggered. Figure's 22 and 23 have been mapped to the interview transcripts, as shown in Table 12, page 183.

For those involved in the change programme, understanding that anxiety and happiness are associated with the Problematization stage of Translation, fear and anger with Intéressement, threat, guilt and depression with Enrolment and gradual acceptance and moving forward with Mobilization, could bring insights to improve the probability of a change programme succeeding.

Figure 23 provides the change leader with a roadmap for enabling the alignment of interests with the change programme. Figure 23 is a sensitising model for change leaders and others to use as a guide for keeping the change process on track. The model keeps the focus of the change programme on the strategy, aims and objectives of the change and encourages reflective thinking on the impact of the change at the micro level at every stage.

The aim of a change programme should be to create a stabilized macro entity that satisfies the goals of the change strategy. The model leads the change leader to follow a scheme leading either to stabilization or de-stabilization. If a de-stabilized state is the outcome it would be possible to identify the stage(s) where destabilization has occurred

and for lessons to be learned. It might be possible for the destabilized outcome to be brought back on track by reviewing the points of failure.

The incorporation of Fisher's Personal Transition Curve with ANT's four moments of Translation allows the researcher/practitioner to identify actors working at the local (micro) level and to understand their motivations, potential responses and impact on the development and potential success of the new network.

Chapter 8 Contribution to Research

This case study made use of CI and ANT in the field of Higher Education and illustrates how ANT can be used to bring to the surface and articulate factors influencing the success or failure of a change programme. The main area of interest is where there are investigations into sociotechnical change projects and the applicability of the methods in similar organizations. CI is a relatively underused technique, section 6.2, page 186, but the experience of this research project has found that the method is useful for uncovering a wide range of related themes by interviewing a relatively small sample population.

For this research project CI was combined with ANT and was found to be a good fit in terms of the ANT dictum of follow the actor. The CI process allowed the researcher to trace the actors (human and non-human) using the reference group and the snowballing process.

ANT was used as the main methodological and theoretical underpinning and was found to be appropriate for an investigation where social and technical actors are combined in a change programme. ANT's four moments of Translation were found to be a powerful sensitising tool for helping the researcher to identify the stages of the change programme and are likely to be applicable in other HEI's and other organizations.

The ANT approach to non-human actors in terms of equal treatment and non-human agency are concepts that can be challenging but these have been found to be useful to raise awareness of the impact of non-human actors on the overall network and their importance in network stabilization or destabilization.

ANT allows the researcher to see the interdependencies involved in an existing and emerging network or structure. ANT was found to be effective for identifying the OPP in the actor-network and to trace the effectiveness of the OPP in championing the new structure and the implementation of the SID system. Networks can contain more than one OPP or the OPP can change over time (depending on the goals of the OPP) and ANT can provide a framework for tracing these changes (Chen and Lin, 2018).

ANT is useful for tracing the social dimensions of the network and can help identify the impact of these on the sustaining the existing or emerging network (Chen and Lin, 2018).

The research has provided a framework for modelling the process of change in an organization to illustrate to those involved that change is a co-created activity (Chen and Lin, 2018) and allows for consideration of alignment to the goals with those of the change programme with the goals of individuals and to see identity as an emergent property of

the network. The implication for practice is that alignment of goals and the imposition of identity need to be planned into the change strategy. Figure 23 provides a framework for plotting the dynamic nature of change programmes and how the various heterogeneous elements can be susceptible to being knocked off course and how a response to these challenges can emerge, for example another OPP.

8.1 Contribution to Professional Practice

Fisher's Personal Transition Curve is a powerful model that can be used to sensitise change leaders and those affected by change programmes recognise the impact of change at the various stages of the change. Combining Fisher with the four moments of Translation provides change leaders with a toolbox for informing change practice.

Aligning the two models gives the practitioner indications of the critical stages where awareness of the impact of the change plan might be thrown off course. Early consideration of the four moments of Translation and Fisher's Curve mapped to the stages of the change plan and strategy can provide indicators of points of intervention prior to the planned stage of the change process being implemented.

Identification of the OPP has been found to be important to the success of a change programme, sections 5.6.3, page 159 and 7.1, page 205, because this provides the change leader with the assurance that the right person is in charge of the change programme and also for identifying through the OPP model, (Figure 21) the interests of the actors involved in the change and how these interests can be aligned with the planned change programme.

Aligning the interests of the actors involved with the change also leads to issues of identity. The change programme needs to clearly identify roles required in the change and these need to be clearly communicated to the actors involved. Aligning and understanding the interests of those involved with the change programme works together with imposing new identities. From this research project it has become clear that understanding these issues can lead to a successful transition from the current state to the desired new state.

Practitioners and policy makers should consider the entire network of associations and not just the human elements or if a technology project, just the technical elements. As has been shown, consideration should be given to human and non-human actors working together in the heterogeneous network. The agency of non-humans is a difficult concept for many but change leaders should consider the impact of non-human

(documents, technical elements, etc.) as sources of action and therefore communication (Cooren, 2006).

“In other words, all kind of things - feelings, concerns, principles, collectives, texts, interests, artefacts, etc - can be said to literally and figuratively participate in communication events.” (Vásquez et al., 2017).

The causes of project failure can to be classified as issues relating to the design of the project, the system created by the project not working as expected and the users being dissatisfied and / or resisting the change (Wilson and Howcroft, 2002). The four moments of Translation used as a planning device is an approach that is hinted at by Wilson and Howcroft (2002). Although their analysis is post-event they strongly suggest that the need to align interests needs to be considered during the change programme to avoid the possibility of the development of anti-programmes and project failure.

Wilson and Howcroft (2002), point out that the process of Translation must align with the interests of participants of a change and the outcome not be pre-determined as resistance is always possible.

Horowitz (2012) argues that for Translation to succeed it is necessary for the primary actor to convince and coerce others to align and solidify them to the Translation but that each actor is unpredictable. Unpredictability can possibly be reduced through gaining a better understanding of individual concerns through anticipating these using Fisher's Personal Transition Curve as a predictive tool in relation to the Translation process. Combining Translation and Fisher's Personal Transition Curve as a method for actively planning and organizing change allows the manager to work with the change process as it happens rather than dealing with events after they have occurred (Boden, 1994, p.10).

The findings of the study support the need for managers, leaders and others involved in the management of organizational change projects to take into consideration the individual needs of staff and how these can be aligned to the change strategy. Using the model described could be considered time consuming and, in some cases, expensive but as many change programmes fail it would seem useful to spend time during a change programme on identifying issues that could contribute to the success of the project.

8.2 Limitations of the Research

This research project was subject to several limitations. These include:

Single case study: the single case study presented several limitations including, not being able to compare the findings to organizations undergoing similar changes, having access to a limited population and sample size and the proximity of the researcher to the projects being investigated. This was a limitation because some of the subjects were line managed by the researcher or were known to the researcher. There was the possibility that these participants might not have been as forthcoming in their answers as they might otherwise have been due to holding preconceived ideas about what was expected of them. The researcher in this position could affect the outcomes through making assumptions about what was happening due to being actively involved with some of the change planning and the implementation of new processes and structures.

ANT as a methodology and theory: Using ANT as the main methodological framework provided a good structure for the research design, carrying out the research and during the analysis. The main limitations relating to the use of ANT were the difficulty in applying it practically. There is limited guidance available about the use of ANT in the field and the researcher is required to read a range of papers and books to develop an understanding of its practical application, section 3.3.3, page 80. Keeping ANT in mind as a sensitising method is challenge especially in terms of making use of the vocabulary in different situations and being able to recognise how different situations map to the four moments of Translation. To do this requires significant reflective thinking which can be difficult to apply in practice and could lead to cases of fitting the process to the evidence.

Convergent Interviewing: The CI process was found to be an excellent process for collecting significant amounts of data but there were several limitations to the technique. These included, the use of the overarching semi-structured question. The initial question needed to be carefully designed to ensure that subsequent questions aligned to the research questions and overall objectives. It was found that the semi-structured questions could be limiting in terms of the responses, and in some cases a considerable amount of data was collected that was not useable in the context of the case. A significant challenge was the establishment of the reference group. The group is limited by its knowledge of the area being investigated and even with the diversity of knowledge in the group, assumptions were made about which staff should be interviewed.

Bias: The CI reference groups main role was to help reduce the possibility of bias in terms of selection of participants to interview. Participants were asked at the end of the interview process for one or two suggestions of who should be interviewed next (snowballing). If there was any question as to the validity of suggestions, they could be referred to the reference group for advice and if necessary potential alternatives. It was found that reference group members did not know all the participants suggested by via snowballing. The researcher could take the reference group advice on the suggested participant or alternative even though they might not have been relevant to the study or they had a perspective that could skew the data, for example a personal issue with a member of the change programme team.

Analysis of the data: The analysis of data was carried out within a pre-determined structure or conceptual framework but decisions about what to include and exclude were still subjective and based on researcher decisions about what elements related to the research questions and which did not. The use of ANT as a methodological framework limited the analysis to a large extent to the elements of the framework, specifically the four moments of Translation and other relevant issues, section 3.3.3, page 80.. This meant that there was a possibility that useful data was set-aside as not relevant to the study.

8.3 Implications for Further Research

Fisher's Personal Transition Curve is not a graph, but a graphic representation of various psychological states and the curve represents the journey through these states as the change programme progresses. The states can vary in duration from between a few seconds to significantly longer periods of time, and the process is not necessarily linear whereby those affected can move back and forth along the curve depending on the progress of the change. The relationship between Fisher's Personal Transition Curve and Translation is an area that can be further investigated. It would be beneficial to investigate the applicability of the model to different types of organizational changes, varying in size and complexity and to consider the model in terms of planned and evolutionary changes.

There is value in investigating unstructured, bottom-up change and to investigate whether this type of change causes the same Fisher Curve responses. Plotting interview responses against the points of Fisher's Curve from a variety of settings would provide empirical data to determine whether there is a relationship between actual change responses and the model of the curve. The aim would be to see if there is a correlation

between Fisher's curve and the variety of curves generated from the analysis of data collected from different change programmes.

It would be worth investigating in detail the use of the four moments of Translation in to test the applicability of the model in a variety of different organizational settings. The area of academic administrative support is a field that requires further research and is a rich source of data that can contribute to providing a better understanding of this aspect of the UK university sector. Reproducing this study in another organization with a larger sample of staff would be useful for providing generalizable data. Tools such as Kurt Lewin's Force Field Analysis could be adapted to be mapped against Fisher's Personal Transition Curve and used as part of the change planning process.

Figure 24 illustrates the type of data analysis that could be carried out to test the relationship between transcript references and Fishers Personal Transition Curve.

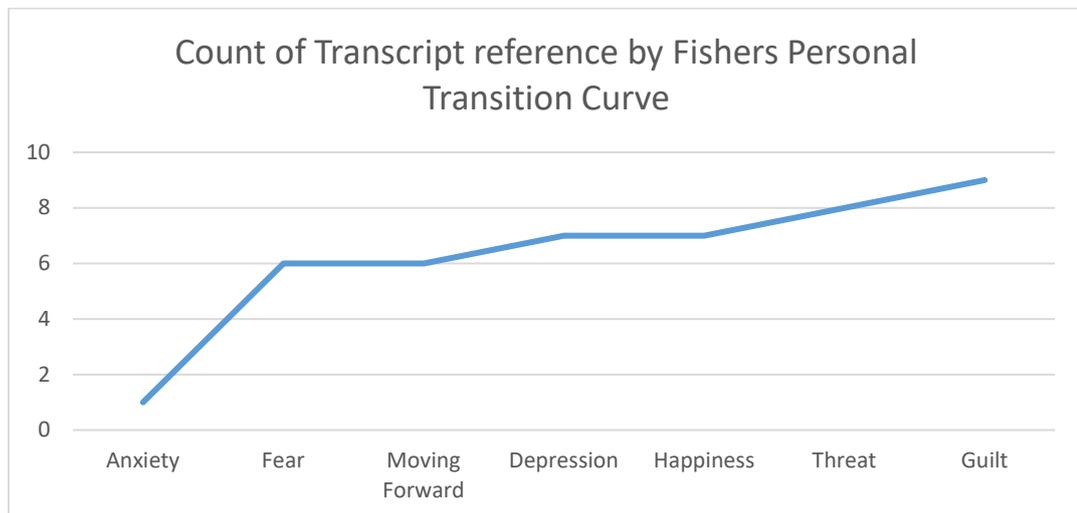


Figure 24 Count of transcript references plotted against the elements of Fisher's Personal Transition Curve

Appendix A Participant Invitation Email

Dear <<name>>

I am carrying out a research project as part of the Doctorate of Business Administration that I am registered on at London South Bank University. I am currently recruiting participants to be interviewed for the research project and you have been identified as a potential candidate who can provide useful, relevant and interesting insights relevant to the project.

The title of the research project is: **The impact of organizational and technological change on team identity, a case study.**

The aim of the research is for me to examine the impact of changes currently going on in the work place and how they might or might not affect your perception of team identity.

Issues of particular interest to me are the impact of changes to your team structure i.e. new members coming in or leaving and working within any new structures in person or at a distance for example using technology. I am also interested in find out whether the introduction of technology into the work flow of the team has any influence on your view of the team's identity.

The ultimate output of my thesis will be a set of principles that could help this and other organizations improve the process of change management through considering the issue of team identity and how this might affect engagement and acceptance of organizational and technological change.

The research project will make use of a number of qualitative research methods including semi-structured interviews, participant observation and collection of supporting documents and other artifacts.

I would like to invite you to attend a semi-structured interview with me on --/--/---- at ---: - in room ---.

The interview will take between 60 and 90 minutes. The format of the interview will be as follows:

1. You will be asked a single opening question. The question will be written down so that the interview can stay focused.
2. The interview will be recorded on my personal laptop PC using software called Soncent. The software allows the researcher to add notes against relevant blocks of text. You will be asked prior o the start of the interview whether or not you are happy for the interview to be recorded.
3. If you are not happy for the interview to be recorded we will proceed. If you are not happy for the interview to be recorded I will take notes throughout on paper – recording key points.
4. At the end of the interview I will ask you to recommend someone else who I should interview – based on job categories that I need to cover.

After the interview I will review the notes and compare them to other participant interviews in order to determine whether there are any similarities (convergences) and dissimilarities (divergences). Convergent issues will then form the basis of subsequent interview questions.

Many thanks in advance for your time and I hope you give this opportunity to influence this project consideration. I hope to hear from you soon.

If you have any questions about any aspect of this research project or your potential involvement please do not hesitate to get back to me.

Very best wishes,

Jonathan Tanner

Appendix B Participant Consent Form

Jonathan Tanner, DBA Research Student

Title of Study: The Impact of Organizational and Technological Change on Team Identity: A Case Study

Name of Participant:

Please tick box on the right to consent.

I have read the attached information sheet on the research in which I have been asked and agree to participate and have been given a copy to keep. I have had the opportunity to discuss the details and ask questions about this information:

I understand that my name and the name of the organization that employs me will not be used in any outputs (publications or reports) but the work group that I am a member of and my job title might be referred to:

The Researcher has explained the nature and purpose of the research and I believe that I understand what is being proposed:

I understand that my personal involvement and my particular data from this study will remain strictly confidential. Only researchers involved in the study will have access:

I have been informed about what the data collected will be used for, to whom it may be disclosed, and how long it will be retained:

I have received satisfactory answers to all of my questions:

I hereby fully and freely consent to participate in the study which has been fully explained to me:

I understand that I am free to withdraw from the study at any time, without giving a reason:

I consent to have the have the interview audio recorded using a digital recorder and transcribed:

I consent to having anonymized direct quotations from the interviews used in publications:

Participant's Name: (Block Capitals)

Participant's Name: Signature

Participant's Witness' Name:

Witness' Signature:

As the Researcher responsible for this study I confirm that I have explained to the participant named above the nature and purpose of the research to be undertaken.

Researcher's Name:

Jonathan Tanner

Researcher's Signature:

IF YOU ARE AT ALL CONCERNED ABOUT THIS RESEARCH STUDY PLEASE CONTACT:

Professor xx xx or Dr xx xx

Tel. No: xx x xx +44 (0)20 XXXX XXXX

Tel. No: Dr x xx +44 (0)20 XXXX XXXX

If you wish to speak to someone not directly related to the research, please contact the Chair, London South Bank University Research Ethics Committee (ethics@lsbu.ac.uk).

Appendix C Participant information sheet

Jonathan Tanner, DBA

Participant information sheet: The Impact of Organizational and Technological Change on Team Identity

You are being invited to take part in a research study. Before you decide it is important for you to understand why the research is being done and what it will involve. Please take time to read the following information carefully. Talk to others about the study if you wish.

Ask me if there is anything that is not clear or if you would like more information. Take time to decide whether or not you wish to take part.

What is the aim of the research project?

The aim of the research project is for me to examine the impact of organizational and technological changes currently going on in your work place and how these might or might not affect your perception of team identity.

What are the main issues of interest?

Issues of particular interest to me are the impact of changes to your team structure e.g. new members coming in or leaving – through team mergers or staff recruitment or staff leaving. I am also interested in the impact of the team working within new structures in person or at a distance for example using online technologies. I am interested in finding out whether the introduction of technology into the work flow of teams has any influence on your view of the team's identity.

How are participants selected?

Participants have been identified by a panel of managers working in the organization. The panel has been asked to nominate a small number of people from within relevant teams who have wide ranging knowledge, skills and experience. At the end of the interview participants will be asked to suggest someone else who should be interviewed – this is a process known as Snowballing. The aim is to gather as much relevant information and data as possible from a cross section of relevant staff. The aim is to interview fifteen to twenty staff representing or occupying a range of grades and roles. Panel members will not be provided with any feedback, transcripts or other information.

What other data is going to be collected and how?

During the research project I intend to collect a range of data relevant to the organizational and technological changes impacting the teams of interest. Data of interest includes, minutes of meetings, specifications for technological solutions used by teams, notes and any other forms of relevant writing. Some participant observation will be used as well where participants will be observed carrying out normal daily tasks related to interactions with technology. A few staff meetings may be observed as well.

Will participants be identified in any research reports or other outputs?

Participants in the research project will not be personally identifiable and all contributions will be anonymized through the use of a coding system. The name of the institution that you work for will also be anonymized but your job title will not be anonymized because this will cause complication and make the research report confusing and unrealistic.

What methods will the research make use of?

If you are happy to proceed as a participant you will be asked to attend an interview with me a pre-arranged time and location most suitable to you. The interview will take between 45 and 90 minutes. You will not receive any payment of any kind for your participation.

What about consent?

Prior to the start of the interview I will ask you to read and sign two copies of a participant consent form. You will keep a copy of the form for your records and I will also keep one for mine.

What if I want to withdraw from the research project?

It is up to you to decide whether or not to take part. If you do, you will be given this information sheet to keep and be asked to sign a consent form. You are still free to withdraw anytime up to the submission of the dissertation and without giving a reason. A decision to withdraw, or a decision not to take part, will not affect the outcome of my Doctorate. You have the right to withdraw from the research project and interview at any time before, during or after the interview. If you do decide to withdraw you will not need to provide any explanation.

Where will be interview take place?

If you are willing to participate, you will be invited to come to my office (room 320, Main Building) for an interview lasting between 60 – 90 minutes at a mutually agreeable date and time. This study is planned to last 10 months. During the interview, I will ask you one or two questions designed to elicit responses relating to change and technology and team identity.

How will the interview be recorded?

During the interview I will be recording what is said and will also taking notes. I will be using either a laptop, iPad or other electronic device to make the recording and for the note taking. During the interview I will not refer to you by name. You will only be required to attend one interview but there is a possibility that I might get back to you for clarification if needed. If you do not wish to be recorded but are still willing to participate, the researcher will take notes only.

Will participants receive any reward for their involvement – what's in it for me?

Participants will not receive any financial or other personal benefit from the research. However, the information you share with me are likely to contribute to a better understanding of the issues associated with team change and how teams can become durable and how technology influences view on team identity. Some individuals may gain some benefit from having the opportunity to discuss this topic with a receptive listener.

What arrangements will be in place to protect my privacy and personal data?

All data (voice recordings and computer notes) will be encrypted and stored securely on a password protected cloud storage site provided by London South Bank University. Any documentation including transcripts or reports etc. will not include your name. Paper documents will be stored securely in a lockable cabinet in my work place. Only the researcher and supervisor will have direct access to the information. Any reference to you will be coded.

How long will files and documents be stored for?

All files – paper and data – relating to the interview will be retained for a period of a minimum of seven years after the end of my programme of study. Documents could be kept for up to 10 – 15 years or more depending on future publications or other future research projects.

What if I have concerns or questions about the research project?

If you have a concern about any aspect of this study, you should ask to speak with me in the first instance and I will do my best to answer your questions my contact details are as follows: Jonathan Tanner and 07765245255 or jt45@xxxuniversity.ac.uk). If you wish any further information regarding this study or have any complaints about the way you have been dealt with during the study or other concerns you can contact: Professor Shushma Patel, London South Bank University on 0207 815 7412, who is the Academic Supervisor for this study.

Finally, if you remain unhappy and wish to complain formally, you can contact the Chair of the University Research Ethics Committee. Details can be obtained from the university website: <https://my.lsbu.ac.uk/page/research-degrees-ethics>

Appendix D Start List of Codes

Doctorate of Business Administration

The Impact of Organizational and Technological Change on Team Identity

Jonathan Tanner

Conceptual framework (the list of research questions, hypothesis, problem areas, and / or key variables that the researcher brings to the study):

Research questions:

Objectives of the study:

1. To investigate how and why organizational changes have impacted on and affected perceptions of team identity amongst faculty administrative support team members.
2. To investigate how and why technological changes have impacted on and affected perceptions of team identity amongst faculty administrative support team members.
3. To investigate how and why organizational and technological changes have impacted individual faculty administrative support team members' perceptions of their own identities.
4. To identify and understand the nature of any changes to the identity in the administrative support team resulting from organizational and technological changes.

Research Questions

This study asks one main question and three sub-questions and relates to a single case study:

RQ1: In what ways has the administrative support team identity changed because of organizational and technological changes?

IDENTITY CHANGE, ORGANIZATIONAL CHANGE, TECHNOLOGICAL CHANGE, EVENT CHRONOLOGY – FORMAL, EVENT CHRONOLOGY – INFORMAL, EFFECT OF TECHNOLOGY ON IDENTITY, EFFECT OF ORGANIZATIONAL CHANGE ON TEAM IDENTITY, TEAM TRANSFORMATION, IDENTITY TRANSFORMATION, METHODS OF CHANGE, PROCESS OF CHANGE, ACCEPTANCE OF CHANGE, REJECTION OF CHANGE, LOCATION OF CHANGE, LOCATION OF STUDY

RQ2: How and why have organizational changes impacted on the administrative support team identity?

ADMIN TEAM, ORGANIZATIONAL CHANGE, TEAM IDENTITY CHANGE, EXTERNAL CHANGE IMPACT, INTERNAL CHANGE IMPACT, CRITICAL EVENTS, ORGANIZATIONAL PROCEDURES, ORGANIZATIONAL PROCESSES, READINESS FOR CHANGE, UNDERSTANDING OF SITUATION, TEAM PERCEPTIONS OF CHANGES

RQ3: How and why have technological changes impacted on the administrative support team identity?

TECHNOLOGICAL CHANGE, TEAM IDENTITY IMPACT, EVENT CHRONOLOGY,

RQ4: How and why have organizational and technological changes impacted on individual administrative support team members' perceptions of their own identity?

PERCEPTIONS OF IDENTITY, TECHNOLOGICAL CHANGE, EVENT CHRONOLOGY – ORGANIZATIONAL, EVENT CHRONOLOGY – INDIVIDUAL, READINESS FOR CHANGE, TECHNOLOGY ACCEPTANCE, TRAINING,

INNOVATION OBJECTIVES, USER MOTIVATION, UNDERSTANDING OF PROCESS OF CHANGE

Propositions

That the faculty administrative and associated teams have changed in planned and unplanned ways over the past ten years as structures and technologies have changed.
PLANNED CHANGE, UNPLANNED CHANGE, EMERGENT CHANGE, REASONS FOR CHANGE,

That the changes in structure and technology have had an impact on the identity of the team over the past ten years.

STRUCTURE CHANGE, TEAM IDENTITY CHANGE, IMPACT OF CHANGE

That the faculty administrative teams are now perceived differently by other organizational staff now to how they were ten years ago due to changes in structure and technology.

DIFFERENT PERCEPTIONS, STRUCTURE CHANGE

That the faculty administrative team's identity is attributed to them by external forces – restructuring and technology rather than chosen by the teams.

EXTERNAL FORCES OF CHANGE, RESTRUCTURING, INFLUENCE OVER CHANGE, CHARACTERISTICS OF IDENTITY - CURRENT

That technology and changes to technology over time have had a significant impact on the identity of the team.

TECHNOLOGY IMPACT ON IDENTITY, CHARACTERISTICS OF CHANGE

Problem areas

The faculty administrative team is subjected to changes over time. These changes are imposed on the team from outside mainly from senior management who decide on the need for change due to external factors for example, student finance, changes to academic departments, government policy, student expectations – customers – and the introduction of technology.

Technology changes result in changes to working practices, routines, processes and procedures.

Technology changes result in the need for staff training and development which might lead to challenges for some staff in terms of learning new skills.

Technology implementation is not always straightforward and relies on planning and project management. It also relies on the technology 'agreeing' to participate in a relationship with human users but this does not always happen as planned.

Theoretical considerations

ANT underpins this study and the main considerations stemming from this are:

Issues relating to Translation:

- (a) **problematisation**: the researchers sought to become indispensable to other actors in the drama by defining the nature and the problems of the latter and then suggesting that these would be resolved if the actors negotiated the '**obligatory passage point**' of the researchers' programme of investigation;
- (b) **Intéressement**: a series of processes by which the researchers sought to lock the other actors into the roles that had been proposed for them in that

programme; (c) **enrolment**: a set of strategies in which the researchers sought to define and interrelate the various roles they had allocated to others; (d) **mobilisation**: a set of methods used by the researchers to ensure that supposed spokesmen for various relevant collectivities were properly able to represent those collectivities and not betrayed by the latter.

In conclusion it is noted that translation is a process, never a completed accomplishment, and it may fail.

TRANSLATION, PROBLEMATIZATION, OPP, INTERESSMENT, ENROLMENT, INSCRIPTION, BETRAYAL, IMPOSITION OF IDENTITY, MULTIPLE IDENTITIES, ACTORS, ACTANTS, DURABILITY, STABILITY, EXISTING ASSOCIATIONS, NEW ASSOCIATIONS, CENTRES OF CALCULATION, HYBRIDS, IMMUTABLE MOBILES, TEXT AND SCRIPT, INTERESTS OF ACTORS, DESIRES OF ACTORS, IDENTITY OF ACTORS, EMERGENT IDENTITIES, INTERMEDIARIES, MEDIATORS, ISSUES OF POWER, POWER AND IDENTITY, POWER AND CHANGE, SPOKESPERSONS

What issues led to the idea to introduce the technology – what problem was identified? Who or what became the obligatory passage point? Did the technology align with the interests of the users?

What was put in place by the management team/project manager to ensure that the technology was adopted? Why was the technology introduced? – tracing the path from idea to implementation. Who was involved, does the technological solution end up doing what was originally envisaged and if not why not? What impact does the technology have on the human users and why?

What aspects of the team's identity are changed as a result of the introduction of the technology?

Bogden and Biklen (1992) coding accounting scheme.

1. **Settings/Context**: general information on surroundings that allows you to put the study in a larger context.
2. **Definition of the situation**: how people understand, define, or perceive the setting or the topics on which the study bears.
3. **Perspectives**: ways of thinking about their setting shared by informants (“how things are done here”).
4. **Ways of thinking about people and objects**: understandings of each other, of outsiders, of objects in their world (more detailed than above).
5. **Process**: regularly occurring kinds of behaviour.
6. **Activities**: regularly occurring kinds of behaviour.
7. **Events**: specific activities, especially ones occurring infrequently.
8. **Strategies**: ways of accomplishing things; people's tactics, methods, techniques for meeting their needs.
9. **Relationships and social structure**: unofficially defined patterns such as cliques, coalitions, romances, friendships and betrayals.
10. **Methods**: problems, joys, dilemmas of the research process – often in relation to comments by observers.

THEME: IDENTITY

IDENTITY PROPERTIES			
ID	IDENTITY CHANGE	ID_CH	1
ID	EFFECT OF TECHNOLOGY ON IDENTITY	ID_EFFECT_TECH	3
ID	EFFECT OF ORGANIZATIONAL CHANGE ON TEAM IDENTITY	ID_EFFECT_ORG	2
ID	IDENTITY TRANSFORMATION	ID_TRANS	4
ID	PERCEPTIONS OF IDENTITY	ID_PERCP	2, 3, 4
ID	IMPOSITION OF IDENTITY	ID_IMPOS	1, 2, 3, 4
ID	MULTIPLE IDENTITIES	ID_MULTI	4
ID	EMERGENT IDENTITIES	ID_EMERG	4
ID	POWER AND IDENTITY	ID_POWER	1, 2, 3, 4

THEME: TEAMS			
TM	TEAM TRANSFORMATION	TM_TRANSF	1, 2
TM	ADMINISTRATION TEAM	TM_ADMIN	1, 2, 3, 4
TM	ORGANIZATION IMPACT ON TEAM IDENTITY	TM_OR_IMPC	1
TM	TEAM IDENTITY CHANGE	TM_TEAM_CHNG	2, 3
TM	TEAM IDENTITY IMPACT	TM_TEAM_IMPCT	2, 3
TM	TEAM MANAGEMENT	TM_MAN	1, 2, 3, 4

THEME: ORGANIZATIONAL CHANGE			
OC	ORGANIZATIONAL CHANGE	OC_CHNG	2
OC	ORGANIZATIONAL PROCEDURES	OC_PROCD	2
OC	ORGANIZATIONAL PROCESSES	OC_PROC	2
OC	ORGANIZATIONAL EVENT CHRONOLOGY	OC_CHRON	2
OC	PLANNED CHANGE	OC_PLN_CHNG	1, 2, 3
OC	EMERGENT CHANGE	OC_EMERG_CHNG	4
OC	IMPACT OF CHANGE	OC_IMPC_CHNG	1, 2, 3, 4

OC	REASONS FOR CHANGE	OC_REAS_CHNG	1
OC	CHANGE STRATEGY	OC_CHNG_STRAT	1
OC	CHARACTERISTICS OF CHANGE	OC_CHARAC_CHNG	1
OC	INFLUENCE OVER CHANGE	OC_INFLU_CHNG	1, 4
OC	EXTERNAL FORCES OF CHANGE	OC_EXT_FRC_CHNG	1
OC	ORGANIZATIONAL RESTRUCTURING	OC_ORG_REST	1
OC	STRUCTURE CHANGE	OC_STRUCT_CHNG	1

THEME:	TECHNOLOGICAL CHANGE		
TC	TECHNOLOGY CHANGE	TC_CHNG	3, 4
TC	IMPLEMENTATION OF SID	TC_IMP_SID	3, 4
TC	TECHNOLOGY REPLACEMENT OF MANUAL SYSTEMS	TC_REPL_MAN	3, 4
TC	TECHNOLOGY ADOPTION	TC_ADOPT	3, 4
TC	TECHNOLOGY PLANNING	TC_PLN	3, 4
TC	TECHNOLOGY READINESS	TC_READY	3, 4
TC	TECHNOLOGY INNOVATION	TC_INN	3, 4
TC	TECHNOLOGY DOCUMENTATION	TC_DOC	3, 4
TC	TECHNOLOGY TRAINING	TC_TRN	3, 4
TC	TECHNOLOGY ACCPETANCE	TC_ACCPT	3, 4
TC	TECHNOLOGY ADOPTION PHASE	TC_ADOPT_PHS	3, 4

THEME: (ANT) TRANSLATION			
AT	TRANSLATION	AT_TRANS	1, 2, 3, 4
AT	PROBLEMATIZATION	AT_PROB	1, 2, 3, 4
AT	OBLIGATORY PASSAGE POINT (OPP)	AT_OPP	1, 2, 3
AT	INTÉRESSEMENT	AT_INTERESS	1, 2, 3
AT	ENROLMENT	AT_ENROL	1
AT	INSCRIPTION	AT_INSC	1, 2, 3, 4
AT	BETRAYAL	AT_BETR	1, 2, 3, 4
AT	IMPOSITION OF IDENTITY	AT_IMP_ID	1, 2, 3, 4
AT	MULTIPLE IDENTITIES	AT_MULTI_ID	1, 2, 3, 4
AT	ACTORS	AT_ACTOR	1, 2, 3, 4
AT	ACTANTS	AT_ACTANT	1, 2, 3, 4
AT	DURABILITY	AT_DUR	1, 2, 3, 4
AT	STABILITY	AT_STAB	1, 2, 3, 4
AT	EXISTING ASSOCIATIONS	AT_EX_ASSOC	1, 2, 3, 4
AT	NEW ASSOCIATIONS	AT_NEW_ASSOC	1, 2, 3, 4
AT	CENTRES OF CALCULATION	AT_CENT_CALC	1, 2, 3, 4
AT	HYBRIDS	AT_HYB	1, 2, 3, 4
AT	IMMUTABLE MOBILES	AT_IM_MOB	1, 2, 3, 4
AT	TEXT AND SCRIPT	AT_TXT_SCRPT	1, 2, 3, 4
AT	INTERESTS OF ACTORS	AT_INT_ACTOR	1, 2, 3, 4
AT	DESIRES OF ACTORS	AT_DES_ACTOR	1, 2, 3, 4
AT	IDENTITY OF ACTORS	AT_ID_ACTOR	1, 2, 3, 4
AT	EMERGENT IDENTITIES	AT_EMG_ID	1, 2, 3, 4
AT	INTERMEDIARIES	AT_INTM	1, 2, 3, 4
AT	MEDIATORS	AT_MEDS	1, 2, 3, 4
AT	ISSUES OF POWER	AT_POW	1, 2, 3, 4
AT	POWER AND IDENTITY	AT_POW_ID	1, 2, 3, 4
AT	POWER AND CHANGE	AT_POW_CHNG	1, 2, 3, 4

AT	SPOKESPERSONS	AT_SPOKES	1, 2, 3, 4
AT	PERFORMATIVITY	AT_PERF	1, 2, 3, 4
AT	PROGRAMMES	AT_PROG	1, 2, 3, 4
AT	ANTI-PROGRAMMES	AT_ANTI_PROG	1, 2, 3, 4
AT	NARRATIVE	AT_NARRA	1, 2, 3, 4
AT	PERFORMANCE	AT_PERF	1, 2, 3, 4
AT	ROUTINE	AT_ROUT	1, 2, 3, 4
AT	MACRO-ACTORS	AT_MACRO_ACTOR	1, 2, 3, 4

THEME: IDENTITY	
IDENTITY CHANGE ID_CH	Identity change because of organizational and technological changes as described by respondents.
EFFECT OF TECHNOLOGY ON IDENTITY ID_EFFECT_TECH	Identity change because of technological changes as described by respondents.
EFFECT OF ORGANIZAGIONAL CHANGE ON TEAM IDENTITY ID_EFFECT_ORG	Identity change because of organizational changes as described by respondents.
IDENTITY TRANSFORMATION ID_TRANS	How Identity is transformed due to the impact of technology and organizational change.
PERCEPTIONS OF IDENTITY ID_PERCP	How perceptions of identity change over the time that the SID system is being implemented and once implemented.
IMPOSITION OF IDENTITY ID_IMPOS	How new identities are imposed on team members and teams because of changes that are brought in by management.
MULTIPLE IDENTITIES ID_MULTI	How individual team members and teams are perceived by different people in the organization and how people respond to these.
ENERGENT IDENTITIES ID_EMERG	Whether new identities emerge because of the implementation of organizational and technological change.
POWER AND IDENTITY ID_POWER	Whether power shifts within the team because of organizational and technological change.

THEME: TEAMS	
TEAM TRANSFORMATION TM_TRANSF	The transformation of the team through the process of translation.
ADMINISTRATION TEAM	The administration teams the object of study and subject to the imposition of new organizational structures and technologies that impact on the identity of the team.

TM_ADMIN	
ORGANIZATION IMPACT ON TEAM IDENTITY TM_ORG_IMPC	The impact of organizational changes on the team or teams in question.
TEAM IDENTIY CHANGE TM_TEAM_CHNG	Any indications that the identity of the teams in question are being changed because of organizational and / or technological changes.
TEAM IDENTITY IMPACT TM_TEAM_IMPCT	The impact on teams of identity changes because of organizational and / or technological changes.
TEAM MANAGEMENT TM_MAN	Issues relating to the management of the team during the change period. Imposition of identity by management on the team.

THEME: ORGANIZATIONAL CHANGE	
ORGANIZATIONAL CHANGE OC_CHNG	Changes to the organization that impact on the teams in question.
ORGANIZATIONAL PROCEDURES OC_PROCD	The procedures or inscriptions that dictate the work of the teams in question.
ORGANIZATIONAL PROCESSES OC_PROC	The processes that are used by the teams to carry out the procedures.
ORGANIZATIONAL EVENT CHRONOLOGY OC_CHRON	The chronology of events that the organizational and technological changes are subject to.
PLANNED CHANGE OC_PLN_CHNG	Changes that relate to planned strategy and are planned to be implemented and whether these changes result in stabilization or destabilization.
EMERGENT CHANGE OC_EMERG_CHNG	Changes that emerge from the team rather than being planned as part of a strategy. The question is whether these changes are more-or-less likely to stabilize or destabilize the team.
IMPACT OF CHANGE OC_IMPC_CHNG	The impact of organizational and / or technological changes on the team and whether these contribute to the stabilization or destabilization of the team.
REASONS FOR CHANGE OC_REAS_CHNG	The rationale of any change decision or the imposition of organizational or technological changes on the team in question.
CHANGE STRATEGY OC_CHNG_STRAT	The strategic plan that is implemented by the macro-organization that results in changes to the team in question.
CHARACTERISTICS OF CHANGE OC_CHARAC_CHNG	The characteristics of the change – the aspects that relate the change to the team.
INFLUENCE OVER CHANGE OC_INFLU_CHNG	The influence that the team or teams in question have over organizational and / or technological changes.
EXTERNAL FORCES OF CHANGE OC_EXT_FRC_CHNG	The forces that influence the organizational macro-actor to initiate changes that result in changes to the team or teams in question.

ORGANIZATIONAL RESTRUCTURING OC_ORG_REST	The nature of the organizational restructuring and the impact of this on the team or teams in question.
STRUCTURE CHANGE OC_STRUCT_CHNG	Changes to the structure of the organization macro-actor or the team macro-actor and the nature of the changes.

THEME: TECHNOLOGICAL CHANGE	
TECHNOLOGY CHANGE TC_CHNG	The technological changes that the team or teams in question are subjected to.
IMPLEMENTATION OF SID TC_IMP_SID	The implementation of the Student Information Desk (SID) and whether it becomes a stabilized network (or system).
TECHNOLOGY REPLACEMENT OF MANUAL SYSTEMS TC_REPL_MAN	The replacement of manual systems by automated technological systems such as computer hardware or software.
TECHNOLOGY ADOPTION TC_ADOPT	Whether the technology implemented in the macro-actor organization is adopted or not.
TECHNOLOGY PLANNING TC_PLN	Planning for the implementation of technology – who plans it, the plans themselves and the people involved in the planning process.
TECHNOLOGY READINESS TC_READY	Whether the team or teams under consideration are ready to adopt new hardware or software.
TECHNOLOGY INNOVATION TC_INN	The technology as an innovation within the team. Innovation defined as a new method or process, idea or product.
TECHNOLOGY DOCUMENTATION TC_DOC	The documentation that relates to the technology innovation.
TECHNOLOGY TRAINING TC_TRN	The training that is needed by the team to enable them to work with the technology system implemented by the organization.
TECHNOLOGY ACCPETANCE TC_ACCPT	The degree to which a person believes that using a system would enhance his or her job performance.
TECHNOLOGY ADOPTION PHASE TC_ADOPT_PHS	The adoption or acceptance of a new product or innovation, according to the demographic and psychological characteristics of defined adopter groups.

THEME: (ANT) TRANSLATION	
TRANSLATION AT_TRANS	The creation of an actor-network. This process consists of three major stages: problematization, Intéressement, and enrolment. Numerous actors within an organization may be involved in a different process of translation, each with its own unique characteristics and outcomes.
PROBLEMATIZATION AT_PROB	The first moment of translation during which a focal actor defines identities and interests of other actors that are consistent with its own interests, and establishes itself as an obligatory passage point (OPP), thus “rendering itself indispensable”.
OBLIGATORY PASSAGE POINT (OPP) AT_OPP	The obligatory passage point, broadly referring to a situation that has to occur in order for all the actors to satisfy the interests that have been attributed to them by the focal actor. The focal actor defines the OPP through which the other actors must pass through and by which the focal actor becomes indispensable.
INTÉRESSEMENT AT_INTERESS	The second moment of translation which involves a process of convincing other actors to accept definition of the focal actor.
ENROLMENT AT_ENROL	The moment that another actor accepts the interests defined by the focal actor.
INSCRIPTION AT_INSC	A process of creating technical artefacts that would ensure the protection of an actor’s interests.
BETRAYAL AT_BETR	The moment that an actor decides to withdraw from an actor-network or to undermine it.
IMPOSITION OF IDENTITY AT_IMP_ID	Identities are not merely imposed or ascribed; identities are also a matter of negotiation, connection, imagination and resistance. http://eprints.lse.ac.uk/35983/1/Representations,_identity_and_resistance_in_communication_(LSERO).pdf
MULTIPLE IDENTITIES AT_MULTI_ID	The range of identities that are ascribed to individuals and teams by others depending on their perspectives.
ACTORS AT_ACTOR	Any element which bends space around itself, makes other elements dependent upon itself and translate their will into the language of its own. Common examples of actors include humans, collectivities of humans, texts, graphical representations, and technical artefacts. Actors, all of which have interests, try to convince other actors to create an alignment of the other actors’ interests with their own interests.

	When this persuasive process becomes effective, it results in the creation of an actor-network.
ACTANTS AT_ACTANT	An actant can literally be anything provided it is granted to be the source of an action.
DURABILITY AT_DUR	The continuation of a network through a variety of means, notably the movement of intermediaries continuously and faithfully repeating a given message and in the process normalizing and perhaps standardizing roles, associations and their distributions.
STABILITY AT_STAB	Actors are not conceived as fixed entities but as flows, as circulating objects undergoing trials, and their stability, continuity, isotopy must be obtained by other actions and other trials.
EXISTING ASSOCIATIONS AT_EX_ASSOC	The existing links or connections that are made between actors, In 'classical' ANT associations are engendered when one actor interposes itself between other actors translating their interests, severing other associations, and aligning those actors with itself.
NEW ASSOCIATIONS AT_NEW_ASSOC	The existing links or connections that are made between actors, In 'classical' ANT associations are engendered when one actor interposes itself between other actors translating their interests, severing other associations, and aligning those actors with itself.
CENTRES OF CALCULATION AT_CENT_CALC	Sites wherein technoscientists bring together of many heterogeneous components – experimental materials and technologies, analytic and calculative skills and various inscription devices. The work that goes on in centres of calculation yields 'immutable mobiles' that can be sent back into the world to generate problematizations, translate interests, and further network building.
HYBRIDS AT_HYB	Mixtures of humans, natures and technologies. Can one function without the mixture of humans and technologies?
IMMUTABLE MOBILES AT_IM_MOB	Usually texts that with the aid of certain techniques combine numerous representations together into simpler and harder representations that resist problematization. Such texts travel with considerable ease, retaining their meaning as they move and they are able to combine with other texts as and when required.
TEXT AND SCRIPT AT_TXT_SCRIPT	Instructions or rules inscribed into technologies that must be followed if the technologies are to work. These often demand (prescribe or proscribe) particular sorts of bodily capacities and comportments.

INTERESTS OF ACTORS AT_INT_ACTOR	The concerns, desires, identities, purposes, etc. which people aim to realize. Interests are relational actors might have interests but these can be fluid and emergent and can be instilled through the processes of Problematization, Intéressement, Enrolment etc.
EMERGENT IDENTITIES AT_EMG_ID	As above
INTERMEDIARIES AT_INTM	Any entity that faithfully conveys meaning from a sender to a receiver so that an association can be accomplished.
MEDIATORS AT_MEDS	Unfaithful intermediaries that transfigure, refashion, and deform the messages that pass between entities. This does not simply disrupt or destroy associations but can proliferate and complicate them.
ISSUES OF POWER AT_POW	Power is traced through relations within actor-networks.
POWER AND IDENTITY AT_POW_ID	Power is traced through relations within actor-networks.
POWER AND CHANGE AT_POW_CHNG	Power is traced through relations within actor-networks.
SPOKESPERSONS AT_SPOKES	The actor who has situated themselves within the network such that they are able to speak on behalf of other relevant entities ideally without contradiction. To be a spokesperson means enrolling other entities who then ideally act according to their allocated roles.
PERFORMATIVITY AT_PERF	ANT moves toward performativity, in which matters of practices/doings/actions are central, and fit very well with projects focussed on social movement practices, where silent and non-evident actions and mediations of technologies are decisive.
PROGRAMMES AT_PROG	The network concept of early ANT emphasized control and stability, and controversy played out between opposing programmes. The programme being the preferred process of translation.
ANTI-PROGRAMMES AT_ANTI_PROG	An alternative programme that defeats the preferred programme.
ROUTINE AT_ROUT	Organizations may be viewed as containing a number of inter-dependent and interlocking routines, all of which influence people's way of thinking as well as their behaviour.

MACRO-ACTORS AT_MACRO_ACTOR	<p>A macro-actor, as we have seen, is a micro-actor seated on black boxes, a force capable of associating so many other forces that it acts like a 'single man'. If the result is that a macro-actor is by definition no more difficult to examine than a micro-actor. Growth is only possible if one can associate long lasting forces with oneself and thereby simply existence. Hence a macro-actor is at least as simple as a micro-actor since otherwise it could not have become bigger.</p>
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Appendix E Contact Summary Sheet

Contact Summary Form

Doctorate of Business Administration

The Impact of Organizational and Technological Change on Team Identity

Contact type:

Visit		Location	Research site
Phone		Contact date	04/03/2016
Interview	X	Contact ID	A03
Observation		Document ID	CS3
Document collection		Written by	Jonathan Tanner

What were the main issues or themes that struck you with this contact
<p>Multiple team identities depending on the stakeholder group that the team is focused on.</p> <p>Organizational changes have not been under the control of the team so the team has had to respond. Change of leadership changed team identity. Increase in complexity.</p> <p>Impact of SID has changed the work of the team. More automation being introduced.</p>

Summarize the information you got (or failed to get) on each of the target questions you had for this contact	
Question	Information
How has team membership changed over time and what effects has this had if any on the team?	Department structures and complexity influence the structure of the team. People staying in role but role changed. Members of team constantly changing.
What significant organizational changes have occurred over time that might have impacted on the structure of the team?	Team structure seen a good structure Previous lack of direction in the team lack of coordination and management. Departments demanding more and expectation growing using more resources.
What significant technologies have been introduced that might have affected the team and its work?	Staff feel technology depersonalises work. SID system, electronic student registers, issues with how hardware influences use of technology.
How do you see your team developing over the next year or two?	Development of the student HUB and SID likely to impact on the structure of the team. Current restructuring plans will dominate team structure plans.

Anything else that struck you as salient, interesting, illuminating or important in this contact?

The importance of technology to this team and how it has influenced the development of the team.

There has been a long-standing issue with staff turnover.

Changes to the team have tended to be responses to changes external to the team.

What new (or remaining) target questions do you have in considering the next contact with this site?

Focus on the SID system and student HUB.

Contact Summary Form

Doctorate of Business Administration

The Impact of Organizational and Technological Change on Team Identity

Contact type:

Visit		Location	Research site
Phone		Contact date	08/03/2016
Interview	X	Contact ID	A04
Observation		Document ID	CS4
Document collection		Written by	Jonathan Tanner

<p>What were the main issues or themes that struck you with this contact</p> <p>Variation in size of the two teams that make up the faculty team – in-group/out-group issues.</p> <p>Fairly stable team over time in terms of membership.</p> <p>Technology has impacted the work of the team.</p> <p>Introduction of SID has led to some confusion in processes and systems that need to be addressed.</p> <p>Teams have strong identities.</p>
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Summarize the information you got (or failed to get) on each of the target questions you had for this contact	
Question	Information
How has team membership changed over time and what effects has this had if any on the team?	Not been a lot of change in the Organization Many in same role not much openness to other ways of working.
What significant organizational changes have occurred over time that might have impacted on the structure of the team?	Senior management fails to implement change. Proposed changes that did not happen Room resources not available - physical issues. Enthusiasm or will to make the change not there.
What significant technologies have been introduced that might have affected the team and its work?	Jobs have changed over the years technology has made things more efficient. Technological changes, less paperwork.
How do you see your team developing over the next year or two?	Built a lot of experience in the team More confident team with more trust

	Trust takes a long time to build, need stability New staff need more time to become convincing.
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Anything else that struck you as salient, interesting, illuminating or important in this contact?
Interviewee provided a very different view due to position in the structure and the team. Very focused on the immediate team issues and very direct effects of technology and change on individual people.

What new (or remaining) target questions do you have in considering the next contact with this site?
Need to start being more specific on the use of SID and related changes – the HUB for example and the impact of these on team working.

Contact Summary Form

Doctorate of Business Administration

The Impact of Organizational and Technological Change on Team Identity

Contact type:

Visit		Location	Research site
Phone		Contact date	11/03/2016
Interview	X	Contact ID	A05
Observation		Document ID	CS5
Document collection		Written by	Jonathan Tanner

What were the main issues or themes that struck you with this contact
Narrow focus on immediate team. Hoping for the team to engage with processes rather than individual personal issues. Aware of technological changes and how these have made work more efficient. More time to spend with individual students in person. Changes to own role as a result of changes to the structure of the team.

Summarize the information you got (or failed to get) on each of the target questions you had for this contact	
Question	Information
Tell me about your team and how it has changed over the time you have been here.	
How has team membership changed over time and what effects has this had if any on the team?	The team is relatively small.
What significant organizational changes have occurred over time that might have impacted on the structure of the team?	Introduction of technology has resulted in different working practices. Team has stayed relatively stable but there have been recent changes to structure.
What significant technologies have been introduced that might have affected the team and its work?	In the past most of the work was paper based but this has changed with the introduction of computer systems. Work was mundane but demanded more attention to detail.
Would you say that your team has a clear identity – what are the key characteristics of your team?	No specific responses to issue of identity but SID and HUB will have an effect on what the team does and its structure and therefore its identity.
Would you say your team is different from other teams – if so in what ways is it different?	The largest faculty has driven many changes. Team structure is not effective and creates tensions.

Anything else that struck you as salient, interesting, illuminating or important in this contact?
Perspective is very immediate team focused with little appreciation of wider issues outside of the team or the organization.

What new (or remaining) target questions do you have in considering the next contact with this site?
Again focus on the impact of the SID system.

Contact Summary Form

Doctorate of Business Administration

The Impact of Organizational and Technological Change on Team Identity

Contact type:

Visit		Location	Research site
Phone		Contact date	18/03/2016
Interview	X	Contact ID	A06
Observation		Document ID	CS6
Document collection		Written by	Jonathan Tanner

What were the main issues or themes that struck you with this contact
Concerned with issues in own small team. High degree of uncertainty due to organisational changes. Issues relating to organizational justice. In-group / out-group. Technology has changed the role. SID not used. Perceptions of the identity of the team based on previous ways of working.

Summarize the information you got (or failed to get) on each of the target questions you had for this contact	
Question	Information
Tell me about your team and how it has changed over the time you have been here.	
How has team membership changed over time and what effects has this had if any on the team?	The team is very small and there have been only few and limited changes over the past few years.
What significant organizational changes have occurred over time that might have impacted on the structure of the team?	Lack of clarity about how organizational changes might affect the team. Professional relationships problems. Organizational culture does not respond well to change initiatives. High degree of resistance.
What significant technologies have been introduced that might have affected the team and its work?	Main technology changes have related to the introduction of spreadsheets and computer based filing systems.
Would you say that your team has a clear identity – what are the key characteristics of your team?	Voluntary severance has changed the team dynamic and the identity of the team by changing relationships.
Would you say your team is different from other teams – if so in what ways is it different?	No specific output relating to this question.

Anything else that struck you as salient, interesting, illuminating or important in this contact?

The interviewee did not provide particularly interesting insights. Some answers related to identity issues which were relatively useful.

What new (or remaining) target questions do you have in considering the next contact with this site?

The participant is not a SID user. It would be better to focus effort on SID users from now on.

Contact Summary Form

Doctorate of Business Administration

The Impact of Organizational and Technological Change on Team Identity

Contact type:

Visit		Location	Research site
Phone		Contact date	08/04/2016
Interview	X	Contact ID	A07
Observation		Document ID	CS7
Document collection		Written by	Jonathan Tanner

What were the main issues or themes that struck you with this contact
The process of procuring software and how even though there is a rational process for making a selection of a contract it can be the case that there can be times such as this one where political pressure is applied to make the process faster and exigent.

Summarize the information you got (or failed to get) on each of the target questions you had for this contact	
Question	Information
What was the nature of any disagreements relating to the contract from scoping through to procurement?	Costs of the application were explained. Difference between the requirements defined by the IT team and the executive management team.
	Differences between the aims of the IT team and the executive team.
	The time that it took to plan and implement the software.
	How the process was documented but the documentation was designed to obfuscate the process.
What's the staffing resource needed to run SID?	Level of human support needed is low.
	The SID system is linked to several other university IT systems but some of the links are not clear.

Anything else that struck you as salient, interesting, illuminating or important in this contact?

There is some distance between the Director of IT services and the staff who actually implement the system in a similar way that there is distance between operational staff and team managers.

What new (or remaining) target questions do you have in considering the next contact with this site?

Need detailed questions to ask the manager responsible for the implementation.

Contact Summary Form

Doctorate of Business Administration

The Impact of Organizational and Technological Change on Team Identity

Contact type:

Visit		Location	Research site
Phone		Contact date	13/04/2016
Interview	X	Contact ID	A08
Observation		Document ID	CS8
Document collection		Written by	Jonathan Tanner

What were the main issues or themes that struck you with this contact
Scope of the project changed in order to ensure that the project was delivered in time and this impacted on the final usefulness and functionality of the product. The amount of negotiation that is needed to get a large system implemented and the compromises that are needed.

Summarize the information you got (or failed to get) on each of the target questions you had for this contact	
Question	Information
Were you involved in the procurement?	Expert advice is not always taken by decision makers.
How long was that planned to take?	Scope was changed in order to deliver the installation in a three-month period rather than an eighteen-month period at the expense of functionality. The change in scope and timescale affected the final choice of software. Issues to do with licensing impacted on the scope of the project. Legal issues affected the scope and the extent of the implementation.
Was there a project board?	There was a PMO that had a PM and a project board.
Isn't it not the idea for the HUB to become like this?	Explanation of how the software system differs from an email system. Development of the HUB and SID thought to be concurrent but there seem to be divergences in systems.

Anything else that struck you as salient, interesting, illuminating or important in this contact?

Some interesting issues regarding how information flows between levels of decision making and where ideas come from and are moved through the decision making process and implementation issues.

What new (or remaining) target questions do you have in considering the next contact with this site?

Speak to Senior Manager of the HUB and SID systems to see how they feel about the implementation as they will be responsible for its ultimate use.

Contact Summary Form

Doctorate of Business Administration

The Impact of Organizational and Technological Change on Team Identity

Contact type:

Visit		Location	Research site
Phone		Contact date	27/05/2016
Interview	X	Contact ID	A09
Observation		Document ID	CS9
Document collection		Written by	Jonathan Tanner
What were the main issues or themes that struck you with this contact			
<p>The vision for the HUB I don't think has changed an awful lot, I would be an advocate of that approach that would seek to minimise students being signposted on to various offices around campus and the view that people who are the custodians of the knowledge that students wanted to ask about should be very accessible, and able to, to cover a multitude of bases.</p>			

Summarize the information you got (or failed to get) on each of the target questions you had for this contact	
Question	Information
Tell me about your vision for the HUB and how the SID system integrates into this.	
Issues concerning building a new team.	Issues around re-design of job descriptions changes to grade and structural changes some issues around physical relocation of the team.
How you might approach inscribing a new team identity.	Through job descriptions through envisioning the team in a year or two's time. Staff changes have undermined the identity of the team fixed term/temp staff don't contribute to team identity.
What will be different from the previous team – work, processes, technology, organization?	The team will become more customer / student focused. Team members will be able to choose roles. The team will be more flexible SID in a similar way. But the SID system itself can also be an enabler or spoke between the people in the HUB and the rest of the university.
What strategies you might have for building a cross School network.	It's going to be very challenging because thinking about structures and change its much more matrix than hierarchical, and flow of knowledge and flow of systems and flow of processes is in a university.
Issues concerning the new building.	The HUB could make appointments for the careers advisors I think just being here five

	months those connections aren't particularly strong.
What would success look like?	The notion of stability and maturity of teams and structures I feel as though some people are just waiting for stability they are waiting for the right systems to be in place, student records system for example.
Anything else that struck you as salient, interesting, illuminating or important in this contact?	
Thorough and wide ranging interview. Covers the team, HUB and SID and how the team will develop,	
What new (or remaining) target questions do you have in considering the next contact with this site?	
Need to expand on ISD issues.	

Contact Summary Form

Doctorate of Business Administration

The Impact of Organizational and Technological Change on Team Identity

Contact type:

Visit		Location	Research Site
Phone		Contact date	09/06/2016
Interview	X	Contact ID	A010
Observation		Document ID	CS10
Document collection		Written by	Jonathan Tanner
What were the main issues or themes that struck you with this contact			
The need for staff training in IT and the need for UI's to be fit for purpose. The origins of the SID application. Experience of installation of service desks in other institutions. Changed the scope of the project due to time constraints. Kept the system simple. SID is all about customer service.			
Summarize the information you got (or failed to get) on each of the target questions you had for this contact			
Question		Information	
Issues about implementation of the SID system		Need people with different skill sets but due to uncertainty good people have left.	
Discussion about how to stop staff using email and start using SID		Well there's something comforting about using email it's quite addictive actually. I must admit I tried instant messaging and you got email as well you know it's difficult, but I use email less and less.	
Discussion about stopping using paper registers and moving to electronic registers.		It does take time (for people to adopt a new system) my experience of installing a service desk at Holloway, everyone used to call the helpdesk or email individual people and we stopped all of that and it does take a few months.	
Discussion about awareness of SID amongst academic staff		No one here thinks any system will have longevity. Do you know what's just struck me that email I sent around this morning should have SID as the contact?	
Conversation about restructuring and Executive Board power.		We don't have that power we are only the executives of the organization who have been asked to do a particular role its quite a struggle and I think HE itself is schizophrenic about this because it's not that clear, you know you've got shareholder interest the owner interest whoever who can then direct what's going to happen that doesn't exist in	

	the university because it is a collective in a way.
Innovation	We do, do things we are successful we do move things forward and although I think we are miles behind the academic administration things like Moodle we were successful getting that in and actually quite innovative, so there are examples we just beat ourselves up a lot.
Anything else that struck you as salient, interesting, illuminating or important in this contact?	
Very reflective interviewee. Issues about power or lack of power.	
What new (or remaining) target questions do you have in considering the next contact with this site?	
Further follow up on SID and implementation.	

Appendix F Question Set One

The Alignment of Interests: Managing Change a Higher Education Institution.

Tell me about your team and how it has changed over the time you have been here.

Some issues you might like to consider:

- How has team membership changed over time and what effects has this had if any on the team?
- What significant organizational changes have occurred over time that might have impacted on the structure of the team?
- What significant technologies have been introduced that might have affected the team and its work?
- How do you see your team developing over the next year or two?

Looking for:

- Team coming together
- Team breaking down
- Team across the organization - the wider network
- Involvement of non-humans
- Non-human roles and where they mediate or are intermediaries
- Roles of non-humans
- Risk of betrayal and why this happens
- Risk of instability and why this occurs
- Development of durability and how this is achieved

Tell me about your team and how it has changed over the time you have been here.

Some issues you might like to consider:

- How has team membership changed over time and what effects has this had if any on the team?
- What significant organizational changes have occurred over time that might have impacted on the structure of the team?
- What significant technologies have been introduced that might have affected the team and its work?
- Would you say that your team has a clear identity – what are the key characteristics of your team?
- Would you say your team is different from other teams – if so in what ways is it different?

Interview questions

AL: Corporate Systems Manager (Academic Services) 13/04/2016

SID Implementation Process

1. Can you tell me about the process of how SID was implemented once the procurement process ended?
2. Can you tell me how many people were involved and what their roles were?
3. Did you and others report to a project board?
4. Were there any ongoing finance issues after procurement?
5. Can you tell me whether there were any disagreements during the implementation and if there were what the nature of these was?
6. How long did it take to install the application and get it to a usable state?
7. How was any training planned and executed?
8. Which staff were included in the training?
9. What ongoing issues are there with the system?
10. In what ways if any do you think the SID system has impacted on the work of faculty and other teams?
11. In what ways do you think the roles of staff might change over time as a result of the SID system?
12. In what ways if any do you think the SID system might impact on faculty and other team structures over time?
13. Are there any other issues you'd like to mention in relation to SID and its impact on administrative team roles?

Tell me about your vision for the HUB and how the SID system integrates into this.

Some issues you might like to consider:

- Issues concerning building a new team.
- How you might approach inscribing a new team identity.
- What will be different from the previous team – work, processes, technology, organization?
- What strategies you might have for building a cross School network.
- Issues concerning the new building.
- What would success look like?

Tell me about your job and if possible the ways that the SID system integrates into it.

Some issues you might like to consider:

- How would you characterise the team you are part of?
- What organizational changes have impacted on you and / or your team since you have been in post?
- Describe the impact of technology on your job in general.
- Explain whether you consider the SID system to be a help or a hindrance.
- Explain whether SID has changed your relationship with students.
- Explain whether you have changed any aspects of your day-to-day work as a result of SID – or other technology.
- If you had a message for the leadership of the organization about its management of change and technology what would it be

Appendix G Schema: Virtual HUB

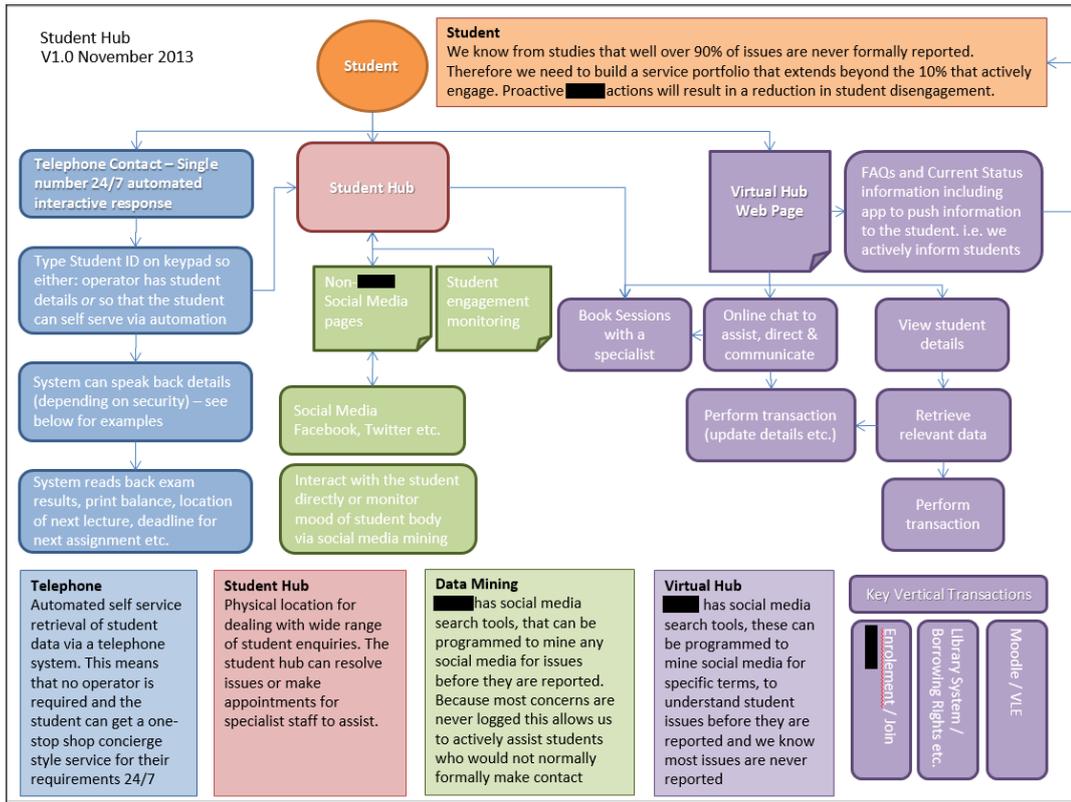


Figure 25 Physical and Virtual Student HUB's

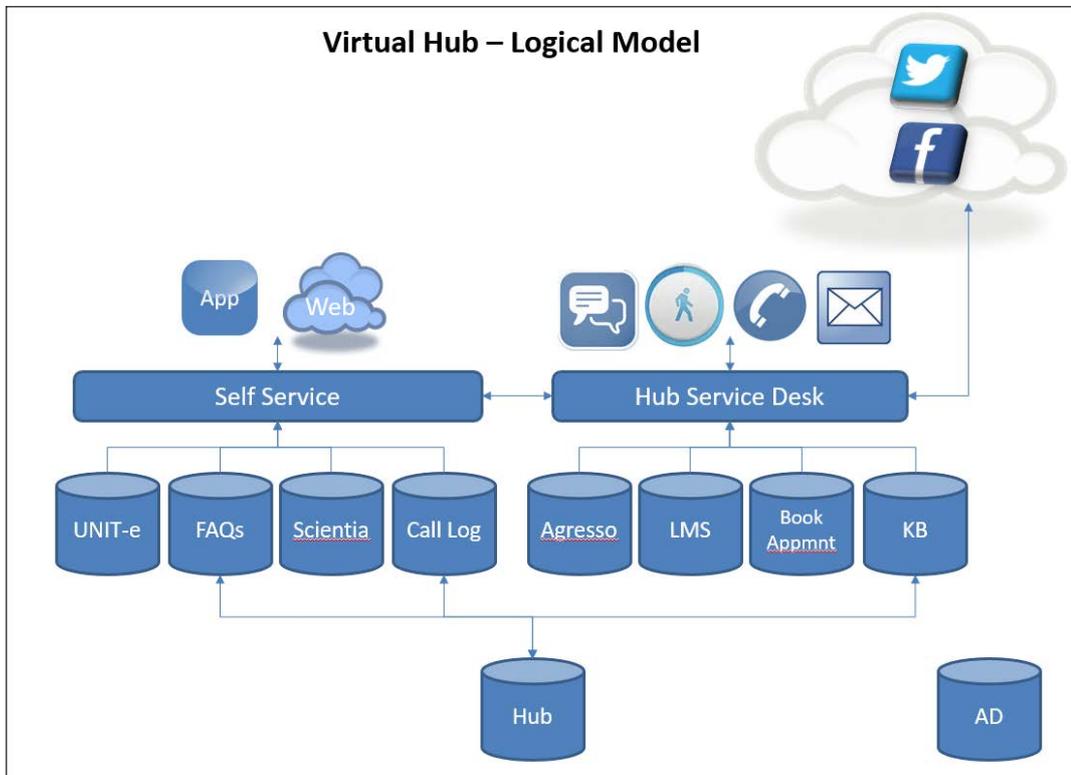


Figure 26 Virtual HUB (SID) Logical Model

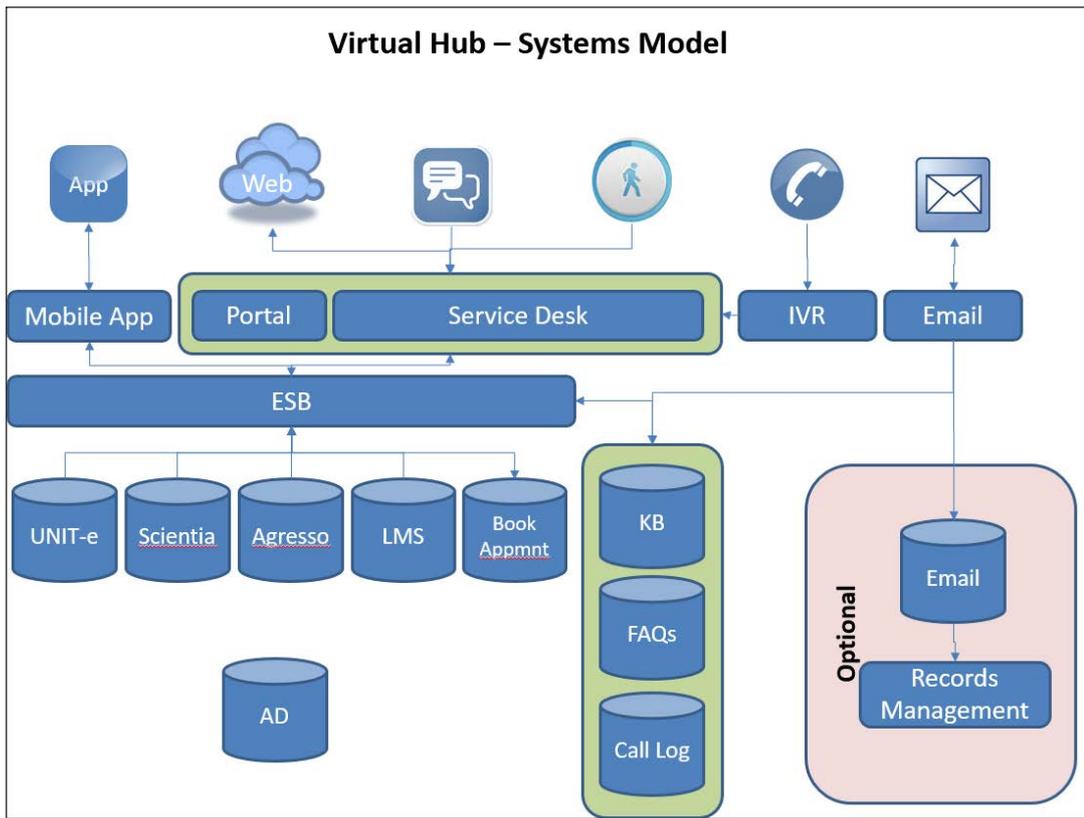


Figure 27 Virtual HUB (SID) Systems Model

Appendix H SID Notification to Students

Email to all on Campus Students

NB: This email must NOT go to Distance Learning or Language Centre Students

Publication Time: 12.00pm, 30th April 2015

XXX University's new online Student Information Desk (SID) is now open for service. It is a service where you can get help with all kinds of administrative and support enquiries via a PC or tablet. It is a quick way for you to contact Registry or Faculty offices. You can also access Moodle and Student Online Services in the same place.

SID helps you to:

- Submit an enquiry once to all staff who need to answer it
- See clearly which team is with your enquiry and what stage it is at
- Easily add further information to an existing enquiry
- Get rapid online answers to frequently asked questions
- See a history of all your past enquires

You can log into SID by using the direct link from **www.xxxuniverstiy.ac.uk/sid** and use your XXX University ID and password.

2. All Staff Bulletin - 1st May 2015

XXX University's new online Student Information Desk (SID) is now open for service. It is a service where current Students can get help with all kinds of administrative and support enquiries via a PC or tablet. It is a quick way for them to contact Registry or Faculty offices. They can also access Moodle and Student Online Services in the same place.

SID help students to:

- Submit an enquiry once to all staff who need to answer it
- See clearly which team is with their enquiry and what stage it is at
- Easily add further information to an existing enquiry
- Get rapid online answers to frequently asked questions
- See a history of all their past enquires

Students can log into SID by using the direct link from **www.xxxuniverstiy.ac.uk/sid** and using their XXX University ID and password.

Appendix I SID Timeline of Events

[Event Name]	[Start]	[End]	[Category]
Hub Project Brief V1.0 20130919 [LH] DC comments	19/09/2013	19/09/2013	Portfolio Board
Virtual Hub Overview	23/11/2013	23/11/2013	IT Systems
Hub - Initial Start-up Report	24/01/2014	24/01/2014	Portfolio Board
Join XXX University Options Review v1.1	28/01/2014	28/01/2014	IT Systems
Kings College Service Desk Research	13/02/2014	13/02/2014	Portfolio Board
Exeter University Student Service Desk Research	20/02/2014	20/02/2014	Portfolio Board
SID Promo Flyer from Exeter University	20/02/2014	20/02/2014	Portfolio Board
London School of Economics Service Desk Research	14/04/2014	14/04/2014	Portfolio Board
Hub- Draft PID V 2.1	08/05/2014	08/05/2014	Portfolio Board
Overview of Initial Conversations with Essex and LSBU	08/06/2014	08/06/2014	Portfolio Board
The Hub (Working Title) - Monthly Project Progress Report	26/10/2014	26/10/2014	Project Progress Report
Hub - Vendor Demo Scoring	07/11/2014	07/11/2014	Portfolio Board
Service Desk Tendering Exercise - Team Recommendation	05/12/2014	05/12/2014	IT Systems
SID Instructions	27/02/2015	27/02/2015	User Guide
What is SID	10/03/2015	10/03/2015	User Guide
SID - User Agent Guide	01/04/2015	01/04/2015	User Guide
SID - Manager Guide (Apr15)	01/04/2015	01/04/2015	User Guide
Email to all on Campus Students	30/04/2015	30/04/2015	Portfolio Board
IT Systems SID Service Desk Meeting	13/05/2015	13/05/2015	IT Systems
XXX University Portfolio Board	17/06/2015	17/06/2015	Portfolio Board
20150706 Governing Body Open Papers	15/07/2015	15/07/2015	Governing Body Papers
Appendix C - Prioritisation of Candidates for Process Improvement	21/09/2015	21/09/2015	Portfolio Board
20161207-Academic Board-Papers	21/09/2015	21/09/2015	Academic Board
XXX University Portfolio Board	19/10/2015	19/10/2015	Portfolio Board
XXX University Remedyforce User Group	10/12/2015	10/12/2015	SID User Group

SID Change Advisory Board Agenda	18/02/2016	18/02/2016	IT Systems
XXX University Remedyforce SID Admin Training Agenda – 1 Day	15/04/2016	15/04/2016	User Guide
20160622 XXX University Portfolio Board All Papers	22/06/2016	22/06/2016	Portfolio Board
XXX University Digital Services-Competitors	09/09/2016	09/09/2016	Portfolio Board
Board of Trustees Open Papers	29/11/2016	29/11/2016	Board of Trustees
FB161703 APPENDIX E - Non-continuation commentary	06/03/2017	06/03/2017	Portfolio Board
20160607 RPC Full Paper Set	07/06/2017	07/06/2017	Resources and Planning Committee
SID Newsletter	10/06/2017	10/06/2017	User Guide
SID Post Implementation Review	10/06/2017	10/06/2017	Portfolio Board

Appendix J Transcripts

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Transcript 1: A01

1 Durability – the team has been in existence for 13 years. Up to recently the team has
2 been very stable with few personnel changes.

3
4 This has changed recently with all permanent staff in the Student support team having
5 left and been replaced with temporary interim fixed term contracts.

6
7 Changes to the team have also included changes to services offered especially due
8 to the introduction of technology systems over the past few years.

9
10 These systems have replaced previous paper based manual systems and this has
11 contributed to changes to how tasks are undertaken and how much time staff spend
12 on tasks.

13
14 There have been two main impacts as a result of technology implementation. One is
15 how much the team has had to adapt to technology and the need for training and
16 development and how tasks have become more complex resulting in there being not
17 one person who knows how to do all the main jobs – as was the case pre-technology.

18
19 The other big change is the amount of time that has been freed up as a result of
20 technology systems being implemented. Staff now feel that they have time to spend
21 with students on more complex issues where previously they were mostly responsible
22 for recording paper submissions and moving papers around.

23
24 Recent changes to the team have caused uncertainty in the team especially when tied
25 to the recent institutional instability. The team has had difficulties building wider
26 networks across the organization and this has impacted on job roles by reducing the
27 ability of staff to gain experience of other roles. The team seems to be passively
28 accepting changes without challenge, this is different to how team members used to
29 behave. A few years ago there was a proposal to merge administrative teams but there
30 was a lack of consultation but there was relief that the merger did not go ahead.

31
32 The team has concerns about the imbalance in size between the different faculty
33 teams. This team is more aligned with one other faculty team than another and this
34 has resulted in strong feelings of in and out group.

35
36 The introduction of a student record system 13 years ago initiated technologies being
37 introduced on a wider basis. This has resulted in the introduction of web services
38 including student blended learning environment, email and recently the Student
39 Information Desk (SID).

40
41 It is not possible to compare the past pre-technology period with the post-technology
42 period. Staff in the team do complain about the need for all the technology systems
43 including SID especially because SID is seen as removing the ability of team members
44 to speak directly with students.

45

1 Another recent change has been the development of a new building (HUB) for
2 students to use as a 'one-stop-shop' for their questions and queries. The team in the
3 faculty see the HUB as a potential threat to their jobs in the long run.
4
5 Along with the HUB development there has been a suggestion that the current three
6 faculty structure be changed possibly to a departmental structure.
7
8 Team members have concerns about the potential impact of this change as there is a
9 suggestion that the three faculty administrative teams could be merged. This would
10 have a significant impact on the identity of the teams as there is a view that the
11 faculties are very different in compositions and sizes. These factors influence team
12 identities.
13
14 There is a strong in-group out-group feeling. Technology is now so ingrained into the
15 work of the team that it is a large part of the work that is carried out. The interviewee
16 used to be able to carry out most of the work of the team but now no longer feels the
17 need to know everything and the systems are now too complicated for one person to
18 know what to do. Although there is now a lot of technology needed for the job the
19 organization is not technology driven and there are a lot of clunky work-arounds.
20 Training tends to be limited and the complexity of systems can be overwhelming at
21 times. Ten years ago it was easier to train people into the job but now there are so
22 many systems its quite tough. Changes are expected but it's not known whether a
23 restructuring would improve things. There is resistance to change and people do not
24 want to volunteer to change

Transcript 2: A02

1 The participant started off by talking about departmental identity and the strong in
2 group identity especially in the past administrative staff associated with the academic
3 departments in terms of their role that staff were aligned with. This was changed
4 when the faculties were formed but there were issues of team size where this team
5 was slightly larger than the other two.

6

7 Growth in student numbers started suddenly and this coincided with growth in the
8 size of the administration team in response to demand.

9

10 Academic staff numbers also increased which also contributed to the growth in
11 administrative roles. This team significantly outgrew the two other faculty
12 administrative teams but this was not a plan it was related to the rapid growth of the
13 faculty.

14

15 A big influence at the time of growth was the very dynamic Dean. The Dean was
16 famous for forming a group identity – from day one. Faculty members did not waste
17 a lot of time on in-fighting and formed a strong identity and team at a very early
18 stage.

19

20 Reviewed the main functions of the team and switched from one design to another –
21 department based rather than one based on academic level.

22

23 People's identity aligned with their academic department as well as the faculty.
24 Some administrators are mainly faculty focused and that's where they see their
25 identity.

26

27 Some people fight for the group that they are in especially what they think of as their
28 primary group. Identity depends on the context that people are in at the time.

29

30 Talking to someone from another faculty they will defend their home faculty but
31 talking to someone within the faculty they will defend the department that they are
32 associated with.

33

34 The team grew but it was not entirely effective due to a lack of particular roles. When
35 the team was first established there was some difficulty getting the right people into
36 the roles and there was a lack of understanding about what the roles were.

37

38 No one knew what skills were going to be needed so it was difficult to recruit people
39 with the right skills. Mixture of growth in team size, individual personalities and the
40 needs of the departments where power was accumulating. Resulted in plans for a
41 restructure. Issues of difference came up – should the team be different? Within the
42 School there was a lot of concern about difference. Size of departments has allowed
43 the team to respond to organizational changes effectively. Has become hard work
44 keeping the team going and maintained as effective. The number of groups formed
45 within the team has grown.

46 Some team members feel they have to defend student interests from a department
47 perspective and some from a faculty perspective. This causes some friction but they
48 are actually agreeing with each other.

49 There is an impact on the team from the other two faculty teams but it's not clear
50 how to define this. There are attack / defence issues which are not necessary. The
51 faculty structure encourages and us-and-them attitude it ingrains which group you
52 are in. You don't know what it's like to be in the other groups, you have the idea that
53 it's very different. In lots of ways it's not different at all in other ways it is.
54 Technologies, there are masses, masses and masses.

55
56 I'm a pusher I'm a changer, let's keep making things better. I use opportunities found
57 along the way to use technologies to improve the way we do things to eliminate
58 duplication. We have not necessarily introduced technologies but used technologies
59 that have been available. Technology has had a massive impact on the team and not
60 how you would expect. For example the BLE (blended learning system) I can't even
61 remember, it started out for course sites and then quite quickly we thought ah we can
62 do coursework submission on it – if we can submit it can we mark it, put the marks
63 online and marks going directly so we don't have to enter them. Sometimes you are
64 deliberately seeing a few steps ahead and sometimes there is a massive opportunity
65 to change something or do something that in itself would be a benefit and then you
66 can see the next stages. All of which will change the way that someone does
67 something.

68
69 The idea for using the BLE for online course submission – not sure where that came
70 from. There was someone in the LTEU who was a real pusher (of technology), she
71 asked how can we progress the learning and teaching agenda and move things on?
72 The BLE is part of a wider consortium, we could not afford it alone if we do it
73 together then we can. I was not responsible for the idea but I was part of the group
74 that worked on it. A few years later someone in my team suggested that BLE could
75 be used as a student information point. If BLE was repackaged slightly or adapted
76 slightly it could be used for an information board for students. It could also
77 compensate for other systems we don't have such as an intranet.

78
79 When I was first here I remember the exam boards, everything was done on paper,
80 there was no one system for holding marks each department had its own
81 spreadsheet for marks and had an exam swapping meeting. I thought to myself this
82 is never going to happen again this time next year there will be something different. It
83 was too easy for people to undermine the system just by not turning up. The idea
84 was to build a consistent spreadsheet, that was a start, then we talked about putting
85 the data into UNITE (student record system) first then there were conversations
86 about how to do that, then how can we... you don't necessarily know what will come
87 next only that it's the right direction of travel. There are not always resources for new
88 systems so you have to make the most of the systems you have, how can we work
89 with the MIS people who can help to do things differently and better?

90 If you look at what the team does now there is very little manual data entry.
91 Dissertation marks is the last thing and we were talking this morning about how we
92 can get away from manual entry. Using the systems that we've got how can we
93 eliminate the need to enter marks twice? As soon as you do that you have the

94 possibility of a data entry error. We also need to change how the teams work with
95 each other and the academics as they would then need to do something different.
96 The new double marking system is also changing the relationships between markers
97 because they need to collaborate more. It's interesting that technology sometimes
98 pushes relationships that there was no intention that just happens sometimes.
99

100 The team sees some technology as part of the team and some they see as the
101 enemy. SID (student information desk) is still the enemy for most people. For the
102 most but there are things that SID does well and here SID is seen as part of the
103 team where it works and where it works efficiently it has cut out duplication. In so
104 many ways SID has created extra work. Most people are getting increasingly
105 confident with technology they are thinking about what they have and how they can
106 do things differently.
107

108 Some people get turned on by what they can do even if it's just getting some data.
109 Others are scared by it they say technology is not part of the team it's something that
110 makes things more complicated. I don't know how much this is to do with how good
111 people are at it or whether it's part of people's approach to change, some people just
112 resist change and some people don't.
113

114 Whether it's about how confident you are in your role and if you are more confident
115 you are more likely to embrace change and explore different ways. There is a
116 tendency to leave change to other people or to leave ideas to other people. It is
117 genuinely hard to empower people to believe that they have a say. You have to
118 reinforce it, even if they feel empowered for a while they can easily slip out of that.
119 People think because there is a whole structure above me and around me and who
120 am I to suggest that something can be done? Our teams are brimming with ideas
121 and with people who have lots of capacity to suggest things and make things
122 different and better but not necessarily the confidence to say things or put ideas
123 forward.
124

125 Our teaching planning spreadsheet is an example. We had a structural review
126 meeting, we met to decide what the system should look like, what it should do how
127 people would like to use it and get things out of it. You can see that thing I said in
128 that session it's here and feeling like we did this. All the people who were involved
129 can see it and that's good and they are feeling good about it. They can then see how
130 they can use it and see how their work might change. Things can change in ways we
131 would never have thought about. Change in the organization and the discussions
132 about sustainability are making people nervous.
133

134 Everyone was settled for a while and happy that the restructuring was paused, I
135 thought the pause would wobble people but it didn't the sustainability document was
136 all at the level of the School but there has been no mention of administration so that
137 has put people on edge. The focus is academically what will things look like but the
138 admin team feels like they are left out of the conversation suddenly. It's interesting
139 we have had a couple of team meetings about the sustainability agenda and staff are
140 really worried. I was thinking it would be good if there are eventually eight

141 departments that there could be eight admin teams and an academic support team
142 as an intermediary between department support and senior management.

143
144 Academics have two identities at the moment one with their department and the
145 other with the faculty. If there was only a department it would be interesting to see
146 what impact this would have on their identity. It can be useful to be in two teams,
147 being in a departmental and faculty team allows people to focus competition on other
148 external teams.

149
150 Leading on technology there is a need to have someone championing technology in
151 because you would have no one pushing it in the direction that they want it.
152 Something interesting is in the organization there are sometimes people who have
153 been there too long either the organization, a group within the organization or a
154 specific role. If people perceive themselves being in the same role for a long time
155 then more often than not those people reach a point where they stop being
156 innovative creative thoughtful responsive it's just too hard to change, maybe its
157 tiredness or it's become too hard to change. Using email for me has increased
158 because of the way I work – especially the job share I use email as a way of
159 developing hand over notes.

160
161 We think of SID as being a bit of an enemy because it's different to email and
162 something else to do but probably SID is more useful and structured than email.
163 Probably from an organizational point of view you would use SID over email – if you
164 had to choose one over the other but no one has even gone there. The issue is
165 having SID for students but not staff and it does not work to have two systems.
166 Introducing SID has been really interesting it's really rocked its really clashed with
167 the way that people work. Because we don't have an answer to it yet it's really
168 grating. You've got technology but there is also face-to-face. A student will come to
169 the office, send an email and do a SID request for the same thing. The words used
170 might be different each time but for the same thing. It's like we are running round and
171 round chasing the student and trying to deliver good service rather than knowing
172 what is going on. The impact of the technology wasn't thought through or was not
173 able to be thought through.

Transcript 3: A03

1 First of all who is my team? Its two team I think. Actually there's three teams, this is getting
2 complicated. So I think my teams are the LSS admin team that who you immediately think of
3 first, when somebody asks who my team is.

4
5 The second team is the team of faculty administrators I would say that's my secondary team
6 and I think the third team is faculty administrators the dean and associate deans and partly
7 the heads of department but probably less so. In some ways there's a fourth team which is C
8 and me because we are in a different position because there's two of us and we are a job
9 share but I'm not sure you can be a team of two. But if you start with the fourth team there
10 have not been any changes to team membership or working methods. I've not been here as
11 long so there's a sense that I'm learning things but as new things come up I'm developing.
12 Thinking about deans and associate deans there have been changes to personnel. There
13 have been three deans since I started.

14
15 Associate deans have changed as well but these changes are not changes that we have had
16 influence over. We did have some ideas about who the new associate deans should be.
17 There have not been any significant organizational changes within that team the roles have
18 remained very much the same. The main change is that the current dean is common to both
19 FA roles whereas the previous two were related only to the other person in the role. The
20 effect of the changes on me have been to make me more confident. There has been a lot of
21 change over time. The impact of this on the Faculty Administrators team has been that it
22 has been hard to form a sense of a team. This has changed recently though now that there
23 all Faculty Administrators are in post. Thinking about the main Faculty administrative team
24 there have been big changes to membership and the structure of the team.

25
26 Originally the three teams were about the same size but this one has grown larger than the
27 other two. One team leader could not manage the consistency of the processes –it just
28 wasn't working – and the departments that were so big that the size of them and the
29 complexity and heads of department were dealing with so many staff and students that
30 they needed one person they could go to. That person could manage and that's why we
31 changed the structure of the team. People in the team were leaving arriving and changing
32 roles and also not changing roles.

33
34 We had a number of people nominally in the same role but doing different work. We had
35 people who moved from one role to another. There was quite a lot of change and partly
36 because of the size of the team, members of the team are often changing. In total there's
37 twenty four of us. And so there is pretty much always someone retiring, leaving, going on
38 maternity leave, going on unpaid leave, going on sick leave, just moving on when you have a
39 team this big there is always something changing and I think that has made it quite hard for
40 the teams to settle into the new structure. And if that is potentially going to change into a
41 new School level structure, I don't know what could happen faculties or Schools or large
42 departments or centralised support, a hub, you just don't know.

43

44 And the university has an unfortunate history of starting to talk about change and then
45 putting it on hold. Which is what's happened again, whether it's a good of a bad thing to put
46 that change on hold there is a sense of uncertainty that comes with that. So everybody
47 knows there is a potential academic restructuring and potential administrative restructuring
48 but nobody knows how it's going to affect administration overall, their particular team and
49 their particular job so there is a sense of uncertainty.

50

51 And that sense of uncertainty is leading people to think that there is a grand plan that
52 somebody is carrying out and not telling them about whereas in fact there just isn't a plan.
53 So I think it's stressful because people think there's a plan but when they find there isn't a
54 plan they will get stressed as well because they really think there should be a plan. I suppose
55 the other big impact on the team is SID.

56

57 In some ways it's changed the work of the team significantly and in other ways it hasn't
58 changed the work of the team at all. I think it should have really changed the work of the
59 team but on a day-to-day level I think it's different in different departments it's different in
60 different faculties. SID has changed the work that some people do but it's made them think
61 that they have to do more work rather than changed it to how they could do it differently. I
62 think that is partially a failure on behalf of the queue managers to really think things
63 through to have the time to really think things through I think we brought it into faculties
64 too early we probably should have held off for another year, but you know we try these
65 things. Some would say that that technological system coming in has increased their
66 workload it's increased their workload because they haven't had time to think differently
67 they have been trying to work the same way but with a different system.

68

69 And I think that's lead to people thinking their workload is increasing. To a certain extent it
70 has because instead of emailing, coming in or phoning people are not emailing, coming in,
71 phoning and using SID. So now there's four levels of contact rather than three and people
72 haven't been prioritising SID over email. I think there has been a change in workload but it's
73 about how people have chosen to use the system. Thinking about the team structure I think
74 the new structure is more supportive for staff in the team than the old one where people
75 were left to get on, on their own. There wasn't anybody to back them up. I think it's a
76 positive structure for them but everybody feels workload issues. Some people would say
77 that there's more pressure on them because of the new structure because the new
78 structure is explicitly department focused I think they would say that some departments are
79 very demanding on the admin team. Every department now has more staff than they used
80 to I think they would say that what the departments are asking for has increased and
81 student numbers have increased so the workload is going up.

82

83 I think the next two years there won't be much change, pretty much carrying on as we are.
84 I have no idea how the School is going to change – two, three, four faculties, things are
85 going to change a little bit around the edges, be fundamentally different, I've just no idea.
86 Given my experience at the School do far maybe some change around the edges but
87 nothing fundamental. But we do have a new (senior) member of staff who's come in from

88 outside and another (senior) member of staff coming in from outside. There's been quite a
89 lot of change of people at senior levels and that does increase the level of more radical
90 change. So it's really quite difficult to see how my team might change.

91

92 Team members do not see SID as a member of the team. I think they see SID as a more
93 complicated email system that makes their life harder but they don't see it as a member of
94 the team or as a way of working – not helpful. I would say the overall perception of the
95 team is it's not helpful. I would be very surprised if anyone said anything different.

96

97 I don't know what they would think about course sign-up, module sign-up. Because the
98 module sign up is another system that's come in since I joined four years ago, don't ask me
99 how they did it before it's lost in the midst of time. I think a lot more was done
100 mechanically, manually, pieces of paper floating around and being input into the backend
101 of systems. I think the idea that students go into a system and say these are the modules I
102 want to take is completely different most people would say that was a real plus. To the
103 extent that when it first came in some people said, oh this is so hard why can't we just get
104 them to sign up on sheets of paper? And now people are very annoyed when departments
105 won't use the system because it just skews everything for everyone else. There is now an
106 acceptance that student numbers are so high that you can't do things on pieces of paper.

107

108 SID is not accepted because people cannot see that it is clearly replacing something and
109 making things easier or more efficient. Part of that is how we implemented SID. I think it's
110 partly because SID is an electronic system that's replacing an electronic system whereas
111 module sign-up was an electronic system replacing a paper system. Immediately people
112 could see that it was different conceptually because you went from pieces of paper
113 everywhere to a computer screen.

114

115 ResourceLink, it's not something that we used to do, it wasn't something we did before so I
116 think people could see it was something completely different so I think it's probably the
117 similarity of SID being an electronic system and email being an electronic system both of
118 them dealing with queries that makes it harder for people to see it as being different and
119 new rather than just additional. There is a bit of a contradictory view, the student support
120 staff would acknowledge that student numbers are going up and it's becoming more and
121 more difficult to manage student queries, but I think they want to deal with those queries
122 on an individual basis.

123

124 They find it hard when you ask them to say to ten people, your query is exactly the same
125 and I'm going to give you one answer, I'm going to hit one button and it's going to say the
126 same thing to everyone at the same time and I'm going to put something on the
127 knowledge base that answers the question before you even ask it. Because they feel that
128 that is impersonal so they feel that they are being depersonalised by the system.

129

130 What you get a lot is people saying that they want student contact which I completely
131 understand it's a nice part of the role – to talk to students and help them out give guidance
132 you know that's a nice part of the job. But what they aren't about to do is if I use SID and

133 speak to all the students all at once with one button which takes ten seconds I've then got
134 ten minutes to do something in-depth to help another student because I'm not spending
135 ten minutes writing and sending emails which even though they are individual they aren't
136 really personal. So I think they find it hard to make the gains that can be made, I don't
137 know what the word is, massive-ication or whatever you want to call it of contact and then
138 use the time to invest in other ways and I think that's one of the ways we were really
139 hoping we would be able to do and I'm not sure it's really worked. You get a sense of losing
140 touch with the students and depersonalised, rather than seeing it as an opportunity to
141 spend less time dealing with what I would call the simple query and more time dealing with
142 complex issues. So as soon as you get into a mass process people perceive it as being
143 impersonal rather than a mass process that allows you the time to deal with the specifics.

144

145

146 Some of the work that we do will move to the HJUB but some of the work that we do it
147 really registry work, I think there are some staff in the team who would be much happier
148 working in the HUB because they want that contact with students. I think what does get
149 lost in the discussions about the HUB is all the back office stuff that relates to students,
150 attendance, the exams, it's the getting everything set up it doesn't matter what you call it
151 it's so the face-to-face can work. I think there is an element of student and academic
152 interaction that should not be lost, around mitigating circumstances because I think some
153 students will always have a concern about speaking to academics about issues because
154 they think it will affect their marks, being another port of call (for students) is an important
155 part of the administrators role – I don't know who to talk to I'll go to the faculty office.

156

157 I think the administrative team is more worried – they don't know what the change is going
158 to be, you know when there's change but you don't know what it's going to be and there's
159 no plan that's when you worry. And there's no visible conversation about getting a plan it's
160 been almost two months, so I can understand. I think the main thing about the HUB for me
161 is not necessarily managing the change but managing people's negative view of the
162 change. And trying to make people see the positives that can come from the changes.
163 Because I think a lot of people in my team and the other faculty teams will see it as an
164 impersonal, moving towards a call centre. The other big system change that I keep
165 forgetting about is online registers.

166

167 I'm not quite sure where the system came from I just can't remember. The thing I
168 remember is the former Director of Student Services I remember being in a meeting with
169 him talking about how to get academics to engage with the online registers and how to
170 complete them and the fact that they were not punitive about us doing the UKVI's job and
171 that they could help us understand when students were in difficulty and fulfil that kind of
172 pastoral role. The Faculty Administrators knew that they would not be able to do it on their
173 own. So we got David involved but what became a fatal error was all of us deciding that we
174 needed visible support from the highest level in the institution. So the Associate Director
175 sent out an email that we wanted to say you need to do your online registers, but
176 immediately somebody went to see her, I don't even know who it was and she
177 immediately took it back and said well, if you don't want to do it online then do paper

178 copies and the whole situation ended up worse than before we had that agreement. So we
179 ended up with a register non-champion in the form of the Associate Director.

180

181 So I think part of the problem with SID is that vacuum at the top and not having a SID
182 manager and having queue managers who have other jobs and other things to do and
183 there being so many of them that it's difficult to get people together and get agreement
184 and I think to do that kind of system change you really do need a person who sees it as
185 their job to get that system in and working and proselytize about it. The student facing
186 staff should come in, in the morning and log into SID and not their email and spend all day
187 on SID.

188

189 I remember the situation at VS where people would turn off the computers and literally
190 you could not turn them back on. So when people finished their class they would not log
191 out they would shut down and the computer would go off and the computer cage
192 prevented the users from getting their finger on the on button and turning it back on
193 again. So you would then have to ring IT services and say the computer in this room is
194 switched off and they would have to travel up there and unlock the cage and switch it back
195 on again. And it just made the computers seem like such a production and it took up so
196 much time that people felt they did not have time to take the registers.

197

198 So something as simple as a little hole – I can't remember what they did – put a hole in or
199 took the front off - I can't remember, but something as simple as that just gave people the
200 excuse that people needed, not to make the change, because people will often make
201 excuses not to make a change. Those excuses may be valid reasons but it still means they
202 are excuses. I think generally people don't like change. Maybe generally the School is
203 change adverse as an organisation.

204

205 The culture here is not what can we do differently the culture here is this is what's worked
206 since 1967 let's keep going with it. Or this hasn't worked since 1967 but let's keep going
207 with it anyway. Because of the organizational culture those people who look at something
208 and say it will never work here are probably right because they and people who think like
209 them will make it not work, so then you are in a self-fulfilling prophecy because they don't
210 think it will work and they don't allow it work. So a slightly depressing note to end on.

Transcript 4: A04

1 I have been in the student support team for seven years, in the Arts and Humanities Faculty
2 team. The team is five or six people within a larger team of ten, maybe eleven people.
3 There haven't been significant changes during that time although there have been some
4 over the past three months with the loss of two members of staff. What we have seen since
5 I've been here is the grading of team members has changed, you could say significantly.
6 When I came you had three grade fives and four grade sixes and I believe two grade sevens
7 sorry three grade sevens. If you look at it now with the imminent changes about to happen,
8 we've actually got five grade sixes and four grade sevens so the make-up of the team has
9 changed to a certain extent.

10

11 There have been several reasons for that mainly people leaving and one or two interim
12 posts and more fixed term contracts it could be argued that the structure is flatter with
13 regards to the team which we had when I first joined. What hasn't happened is the student
14 support team has always been bigger than the academic support team. They've always
15 had two members of staff and we've had six, currently five. There was an attempt four
16 years ago to change the dynamic between academic and student support which didn't
17 actually happen. I believe the idea at the time from what I saw was to have two teams,
18 academic and student support and they'd look after different subjects so that was one
19 proposed change that didn't happen.

20

21 Most recently with the two posts grade six and grade seven there has been a change in
22 my own particular student support department for me to take over a different department
23 with the grade six person going and ultimately that's opened up a situation for someone
24 else to move and ultimately that's opened up the situation for someone else to move or
25 possibly be moved into upper grades with regards to that. That's one of the changes that
26 hasn't occurred yet. In theory with one of the grade seven people leaving obviously the
27 work had to go somewhere so far I haven't seen the effects of that as it were they have
28 been negligible, basically it doesn't seem like the workload has gone up significantly in
29 fact its possibly streamline things a bit more. The work being done by fewer people in
30 some ways means that it's been covered and slightly more efficient in some ways, with less
31 people doing things it certainly makes things easier in some respects, it's more of a one
32 stop shop rather than different people doing different things.

33

34 Proposed changes mentioned earlier did not happen – why not? Some people said it was
35 because it wasn't feasible because they were against it but my understanding – and this is
36 very simplistic, but what I heard was that they didn't have room resources, a room couldn't
37 be found to put the second team in, believe it or not. And it just didn't happen. That's the
38 only explanation I believe to be the case. Or it could be argued that the person who had
39 the idea was only here for a short period and due to there not being huge enthusiasm for
40 the idea maybe because there not being the will to do it maybe that was used as a kind of

41 excuse to put it on the back burner. It did seem a lot of work for something that did not
42 occur. There were lots of reasons given for this new idea and then it's that's that I'm leaving
43 next week. Well again some of the proposed changes have not occurred, when I was fairly
44 new here there was a proposal for our faculty to be merged with Languages and Cultures
45 and when that was leaked the Dean at the time was very straight with us that there was
46 an almighty opposition especially from Languages and Cultures and again it didn't happen
47 as far as I could see due to opposition. The objection was, the official objection was that it
48 (the idea) hadn't been through proper channels but the unofficial objection was that
49 peoples jobs might have been at risk, if we had for example a combined faculty we
50 wouldn't need as many people at certain grades.

51
52 For me personally it was quite a new experience because organizational changes in other
53 organizations that's the way it is, if there's redundancies there's redundancies, but as I've
54 found here if you don't do the right consultation you can kind of find yourself having to
55 backtrack a little bit.

56
57 If the change had gone ahead how would the team have come together to form a new
58 team? It would have been quite difficult actually. At the time we had a new team leader,
59 someone who didn't last particularly very long. I think she probably would have been a bit
60 overrun she didn't really have her own way of doing things here let alone with a more
61 experienced team leader from another department. I suspect from what I've seen that they
62 would have been the need for a lot of work to create common practice and what would
63 be deemed to be the right way of doing things. And they would have slightly different
64 ways of doing things compared to us.

65
66 There would have been quite a lot of conflict probably, but then again that's all
67 hypothetical and we won't know for sure. Yeah we've not had a huge amount of change,
68 it's a bit of a shame really in some ways it can freshen things up a bit. What's happened is
69 you've got people, and I'm talking about the School in general here, who probably have
70 done the same role the same thing for year after year without really opening their minds
71 to doing anything else and I think from my own experience working in other places, we
72 make a change doing things in different ways, it re-motivates you, makes you see things
73 in slightly different light. It tends to be a thing here where people have their role and that's
74 it for the next ten years.

75 People who have been here for ten years must have changed their role? Yeah I'm probably
76 being slightly generalised here.

77
78 My own job has changed so have my colleagues. Obviously the things we use has changed,
79 that has been good that made things more efficient (technology). It is good to make
80 change but there's nothing wrong with doing the same thing for years, if you are doing a
81 good job and getting on with it. But it's good to embrace, especially when it comes along
82 something new, and sometimes that means the structure of the organization.

83

84 If someone has been in a job for some time are people more likely to engage with gradual
85 rather than big-bang change? I would say that a big change – that has not really occurred
86 – but it has meant resistance and change that does not really occur very quickly at all. I'll
87 give you a good example, what we offer in the student support counter. It was basically
88 like going to a Primark shop, we were just there to take in assignments but we didn't really
89 have time to give that kind of one-to-one support to students, that's what we do now
90 because we don't have to take in stuff now when students come in it's a more supportive
91 system. I'll give you an example when I first came if students came after four o'clock, there
92 was almost certainly an attitude of we don't speak to students now because that's the time
93 we have to do other work, they know we are open, otherwise we would be here until five
94 o'clock.

95

96 I would say over the last two or three years since we've not been run off our feet, you know
97 it used to be physically quite tiring, now if the student comes after four we can be more
98 accommodating, we are offering more of a service rather than you are free to come in but
99 it has to be at a certain time. So in that sense it's certainly changed. And that's partly due
100 to the technological changes, online module sign-up, Moodle, there's less paperwork,
101 there's less reason to come to the office.

102

103 I think also what I've kind of seen and I do this personally, the good thing is we are all very
104 experienced, one, academics trust us more than before and leave stuff up to us and
105 secondly there's stuff whereas before we would have to refer them for example maybe to
106 Exams, because that would be seen as the safer [option]. Whereas now we have more remit
107 and more kind of do it ourselves now, that's something that's changed especially with
108 regards to academics and academics trust in you. That takes quite a few years to get before
109 they put that trust in you, right I'm going to the Faculty Officer with this particular query
110 and what they say I'm going to take as the answer.

111

112 You can tell now that will take it, when I first came it might take slightly more convincing,
113 because an answer they didn't like for example.

114 We haven't had a significant organizational change, it's been mooted once or twice, so the
115 structure of the team has not changed that much.

116

117 What's the view at the moment? Well, I've heard from various meetings, at one point it
118 looked like departments and not faculties, and then I was at a meeting two weeks ago, a
119 person who is pretty high up seemed to be saying that it's not going to make a lot of
120 difference from what we are trying to do, so me personally I think it's going to end up in
121 two faculties, but I don't make the decision here, but I can see that kind of taking a lot
122 longer if they do it at all, because as I say I can think of two incidents where there's been
123 mooted change but it's gone through consultation and the issue of a room or people
124 made such as fuss to the union that at those times it was dead in the water. You just never
125 know here. It's kind of wait and see when it happens.

126

127 I've worked in quite a few places where change has happened and you either like it or
128 lump it. I know what it's like to work in places where there's no employee consultation. I
129 like to think I'm more agreeable to change. I know that here it's going to be on the whole
130 very fair and it's not going to be done in an underhand way, which unfortunately I've seen
131 in other places. So that's how I see things here. I think here they could have a bit more of
132 a hard line attitude. Sometimes if you want to achieve something.

133
134 Moodle has changed things a lot, it's easier for students I think it's probably easier for
135 academics and made things easier for admin staff. One of the problems I used to see when
136 I first came, it's amazing how easy it is for stuff to go missing when it's paper based you've
137 got things in the internal post, pigeon holes, second marked given to people who's priority
138 is not always to do the marking or their skill set is not being organized or efficient in
139 keeping things in order.

140
141 They might be brilliant lecturers, I have seen situations where we've had to spend a lot of
142 time dealing with bits of paper going missing, not being put in the right place and me not
143 being the greatest filer. I've found these things like Moodle have greatly improved things,
144 it means we work differently, we still work in Moodle we still have to do things that are
145 different, for example getting things put on to Moodle when students aren't able to do
146 so, we have a situation this year with files being corrupted so we have to put them back
147 up, we have to make sure the date is the original date. Things of that nature, it feels like
148 our jobs is slightly more modern, if you like.

149
150 We are doing a more kind of, you know we are not just paper pushers, we are doing a job
151 that does involve dealing with technology.

152 SID is another thing, which although hasn't exploded or taken off, not with our faculty
153 anyway. We still get lots of students contacting us in the traditional way. I can see the way
154 the School is pushing it and when new students come it what they are told to use from
155 the beginning, I can see SID becoming a new way of doing things. I've worked with things
156 like SID before, so I'm quite used to it and I can see the upsides to it. It does mean that
157 student enquiries are not just sitting in the ether somewhere they are there to be dealt
158 with and there's also the added thing that in theory once it's been used a lot you will be
159 able to look back – although we haven't quite gone far enough, you'll be able to see what
160 people have done with student enquiries.

161
162 One of the things we've had before is students have emailed all and sundry and got
163 different answers here and different answers there and they've tactically asked this person
164 this and this person that so they get different information and hopefully what will happen
165 when SID kind of comes together which I've a feeling it probably will do it will mean things
166 like that will be less of an issue. You put something on SID and it goes to the right person.
167 And then if a student does try to pull the wool over someone eyes about what they have
168 been told it should hopefully be slightly more transparent as to what's been said or what's
169 been recorded.

170

171 Sometimes the old system we are using now can cause problems it's not really clear what's
172 been said (email) also where students they go to a counter and sometimes they just
173 misinterpret or some of them have been known to will fully misinterpret it. As I say we
174 haven't quite got there yet because SID is still in its first infancy. It's when new students
175 use it, it will be interesting to see how that works. Also I think it will help students, students
176 sometimes email somewhere they shouldn't and it's not really dealt with, for some reason
177 like holidays or things like that, this will hopefully mean, this is my SID enquiry, someone
178 else can pick it up if need be it should help with respects to that.

179

180 For some issues I'm not convinced that SID is the best thing, some more complicated
181 issues where an email exchange or even a SID exchange is not really going to solve the
182 problem, or you can't really advise them and some students are not really that good at
183 articulating what the problem is you actually have to ask the right questions to get what
184 the actual problem is, and then you can only do that when you are face-to-face with them.
185 Students will put something down on SID like, I haven't got access to this course, now you
186 might find it could be something as simple as we didn't make that live on course assistant
187 or it could be you haven't paid your fees.

188

189 OK you've said to fees you've had this problem, so you haven't been able to submit your
190 assignment so what have you done? So the assignment has gone to the course convenor,
191 so you find there's a whole back story with a lot of things that lead on to what's happened
192 which maybe the student wouldn't put in a SID enquiry because they wouldn't know to
193 put that in a SID enquiry. They come up to the counter sometimes with what seems like a
194 simple query but once you delve a little deeper you find something a lot bigger. And then
195 that's when you can start to help the student.

196

197 Some things with SID are quite good although it could be argued there is a lack of training
198 as to what really needs to be put on there to help the next person dealing with a situation.
199 Just putting 'email sent – closed' is not the greatest thing to put in the resolution box. If
200 they put what they have actually advised the student – this is what I've done – closed, I
201 think there's still more to be done throughout the School I think. The person dealing with
202 it knows what's happened, I've worked in other places where putting in notes is like very
203 important. It's not in the culture here.

204

205 How to get people to give up using email and use SID? I'm going to be honest and say if
206 someone said this is what we are going to do I would be happy to do that, I would imagine
207 there would be quite a lot of people who just would ignore that directive probably who
208 wouldn't engage in it quite as well as they could, I might be wrong on that. I did just think
209 that when I was at the meeting.

210

211 Why do you think that is? People don't really get in trouble for not doing what's asked. It's
212 just seen as oh well he didn't do it well that's that then. People will do what they think they

213 should do, even if they are told this is what we are doing now, and that goes for academics
214 as well. That is something that seems to be a bit of a theme (here) if you ask me. I can
215 understand about not emailing but I wouldn't advocate putting everything on SID. But I
216 can see Law and Social Sciences engaging with SID a lot more. I can see them using SID in
217 a lot more different capacity than for example us. We are supposed to be providing the
218 same service to the stakeholders i.e. the students but we don't they do something
219 differently with regards students, how they communicate with students. At the meeting I
220 was at there were a couple of changes that they agreed to be done but they we were told
221 it still has to go to another committee. That's another example of why things could take
222 longer than they should. If everyone's happy with it and it's a small thing then let's do it.
223 Why put it off, why wait three months, then it gets forgotten to be put on the agenda and
224 then it's not done.

225

226 Were you here when registers were introduced?

227 Yeah it's like everything here it took a year or two for people to start using them,
228 unfortunately there are still academics who are told to do it and they just think I won't do
229 it, I'm still using paper. No one's going to say anything it's just what they do. So we've got
230 a situation where I get asked about students who are... there's attendance issues, but
231 there's nothing official because the registers haven't been filled in. We want to bar the
232 student from the exam, we can't because there's nothing to say they haven't been
233 attending, well, they haven't been attending, well, you didn't fill in the registers.

234

235 Registers are a lot better. Two years ago I had to put a lot of marks in. It's the same with
236 Moodle, this is more the academics. The first year they just weren't engaging the second
237 year the good ones will the third year is when you spend getting the real diehards to get
238 them to do it. So it takes a year to three years before something is up and running. And
239 that seems to be something that happens a lot here.

240

241 The online course sign up. It's a lot better than when I first came. It was still in its infancy,
242 and every year it's got better and better. So now it's a proper part of the enrolment
243 process. For the first year or two or three half the students couldn't even get on it, it was
244 all paper based. We still have to do that in some cases. It's one of those things that gets
245 better every year. The hope is we get rid of another thing that can go wrong, piece of
246 paper, piece of paper, taking in a piece of paper.

247

248 So yeah that's improved, everything's improved, Moodle, when I first came, or when
249 Moodle was first introduced, people wouldn't use it – I'm talking about academics, would
250 not put anything on it. Now they know it's a good thing to use for the students. They took
251 a lot of convincing, now they say yeah, it's really good, I can put my lecture notes on it,
252 but if you spoke to the same person four years ago they would have said, no, no ,no, I
253 need them photocopied.

254

255 Who's championed these systems?

256 Well, the Team Leader has been very pro-active pushing the academics, making them
257 aware of how to do these things. I get the impression with previous Team Leaders they
258 would have probably sent an email just because that's what had to be done and that would
259 be that. When he sends an email it's, these are the reasons for doing it and this is how it
260 works, if you need help, we can help you. It's basically a case of they kind of get the
261 message and with the help of the Faculty Officer. We kind of try to reinforce what needs
262 to be done. With the help of the Head of Department, it's the whole working together with
263 them and get the message across that it's easier and there to help. It's not just something
264 just made up to make everyone's life more difficult.

265

266 How do you see your team developing over the next year or two?

267 There's quite a lot of possible changes mooted School wide. Also we've got the issue of
268 the HUB. So in theory looking at that there could be significant changes. Just from previous
269 experience though I wonder how much it will do. It might look like a big change but it's
270 not really that big a change. Back in July they showed these quite radical ideas and from
271 what I've heard they've slightly been scaled back, at least the more radical ideas. There
272 were three main ideas, the one I thought would be the one I thought they would go for is
273 probably the one they will go for. For our team, it could mean we are combined into a
274 bigger entity, it could mean the department is moved to another Faculty.

275

276 Do you think the Faculty teams have strong identities?

277 I think they do. LSS is obviously the bigger one, they also come across as slightly more
278 corporate. I think some of their practices are a little bit over the top, corporate in fact.
279 Some things they do I wonder why they do them. I see L&C as a joke really. I think they
280 do things without having much of a procedure. I went for an interview with them, sideways
281 move, about three years ago, and the whole experience was a joke. Basically I was told to
282 do a test they made me wait outside the interview room in a place where everyone could
283 see me, which didn't seem very professional, and they didn't tell me where to go, they said
284 oh you'll know where to go.

285

286 The test was done on the side of someone's table without a proper chair, and it was about
287 regulations and they gave me the wrong regulations that were really out of date. They
288 obviously had not updated their test. They have had quite a lot of people leaving recently.
289 I think we fall a little bit in between, we don't necessarily go for this rigid bureaucratic,
290 corporate thing like LSS but we give a more professional service. I personally think we fit
291 quite nicely in the middle. LSS I think we could do some things that they do, but they have
292 different subjects.

293

294 It's easy to look in (at other teams) and get a stereotypical view. Open plan offices give
295 the impression of being more professional, which isn't necessarily the case. Although
296 smaller rooms are not necessarily the best. The team development depends on what the
297 School overall wants to do, probably means we will remain exactly the same.

Transcript 5: A05

1 I have been here since April 2008, so I have been here eight years so I've seen quite a few
2 changes. I'm talking about my own team and how it has evolved. We have had two
3 members of staff who have left and for me the quality of my time here has improved a lot
4 I would say. The dynamics have changed they were very divisive before because two
5 people have left I have been offered a role, I've been asked to take on more. We are a
6 small team and when you have divisive and negative people it does impact on the quality
7 of our work and the emphasis of our values.

8

9 There are still tensions with the Team Leader but from my point of view I can honestly say
10 that it's so much better.

11

12 When I first started there was a lot of emphasis on paper because we didn't have SID
13 obviously we had email. The desk was a lot more busy (Sic) when I started but it's virtually
14 redundant now. Eight years ago at the beginning and end of terms the desk was busy
15 because of the request for paper, paper in the form of assignments. Paper in the form of
16 course sign up. So technology has had a huge impact and I think it's better. We are not
17 paper pushers any more. Course sign up is online, submission of essays is online (the BLE).
18 It's certainly reduced the mundane parts of our job. Because with paper you need to keep
19 it in order. Certainly with assignments you had to, because with assignments there were
20 duplicates, there were triplicate forms that had to be kept in order. There's less need to do
21 that now.

22

23 This has freed up our time, well from my perspective it's freed up my time to talk to the
24 students more. They still do come in but not to submit paper. It's freed up my time to
25 enable me to have quality time with the students. They come to the office now because of
26 a range of reasons (can't submit online, personal or financial reasons). So our brief as
27 administrators has improved. Our status has improved, because we are now the link pin
28 between the student and their ability to submit course work online or not. The experience
29 they have with us is really quite important. The type of experience we offer is really quite
30 important. The kudos of the student support office has improved. The technology is
31 dealing with the mundane work, which we used to do.

32

33 Now dealing with issues like students with mental health issues. The student experience is
34 very important. From my experience walk-up to the desk is now very lacklustre. This week
35 for example – I've got other things to do now as my role has changed so much – today I
36 think we've had three students. Sometimes they are quite difficult, sometimes you can deal
37 with them there and then, the majority of cases are solvable.

38

39 Organizational changes within the team. We've had high turnover of middle managers
40 and senior managers. There is a period of calm at the moment compared to what we've

41 had previously. One of the queries I've had with teams and how they work is the nature
42 of individual administrators work. It's very cyclical work. What I'm seeing is some
43 people do more and some people do less. What's needed is some kind of transparent
44 modus operandi. Our work can't be set in stone because of the influence of the
45 departments. Each department has its own character, and each department will ask
46 their Faculty Officer to do more or less than another department would demand.
47 Although we have a Team Leader we also work for a department and they will influence
48 what we do. Some are more hands on than others. In order to alleviate some of the
49 inequalities it would be good for each administrator to undertake the same core tasks
50 at the beginning and end of term. For me it's about fairness, I've got this thing about
51 fairness.

52

53 If everyone pulls their weight then you can have a team. But without that you don't
54 have a team. Some people are doing a lot more than others. We have a culture in the
55 School of you've done wrong it's so negative, it's really, really bad if the imbalance is
56 addressed then we can focus on providing a quality service. Addressing the imbalances
57 is key to building a strong team, trust in your middle manager. Managers should be
58 here to get the best out of their staff and not to get involved with all this tribal stuff.

59

60 The HUB, some work might be transferred to the HUB, but I think, what I'd like to see
61 happen is that desks go in faculty offices and that offices have office hours, what's the
62 point of having a reception which is a kind of HUB? The way around replicating the
63 HUB is to remove the desk, it has been a big contentious issue in our Faculty. We will
64 still see students who can't get answers from the HUB. They can come and see us or
65 we can email them. It could be just email but there will still be the needy students who
66 need to talk.

67

68 Where is SID in this?

69 Oh SID, I have to monitor it every day. There's just nothing at the moment, students
70 are not submitting anything. I don't know why that is. My understanding is it's a cyclical
71 thing with SID. Work load is heavier at the beginning and end of the term. Key times
72 for students we see an increase in activity from students. Students are coming into the
73 office to ask about re-submissions at the moment. We've had about two messages in
74 three days. It might be different in another faculty. One thing we've copied LSS in using
75 generic email addresses. Emails tell students that we won't be able to reply to email
76 messages and for them to reply using SID. There are so many more students in LSS so
77 they probably get more requests.

78

79 I think they have really driven home this issue that they have to use SID and you must
80 do everything through SID. I think sometimes the human element is overlooked. We
81 have fewer students so we can be more touchy-feely. If I had four hundred students,

82 like in Law I think I'd say everything should go through SID. I think there are 25
83 administrators in LSS with Arts we have 10, so it's completely different.

84

85 So to go back to how you see your team developing over the next two years, I'd say
86 to have more balance, more fairness, more direct instruction on what needs doing, it's
87 so circuitous here. It's very unhealthy, it creates groups, it creates rivalries, there's
88 nothing wrong with addressing bad behaviour or things that haven't been done. Their
89 just averse to doing that here. I don't know why.

90

91 I do have a lot of contact with technology here, it's all technology now. We would be
92 totally redundant if we didn't have our computers, we would not be able to work it's
93 as simple as that. Technological change has been huge. I think in terms of rolling out
94 SID I will have more of an idea when I'm in my new role.

95

96 I think we as a Faculty have to be more strategic with regards to what we expect our
97 students to ask of us. We don't know at the moment, or I don't know. I like to talk to
98 students face-to-face. SID is a success but it's still very much in its early days and we
99 as a Faculty have to be clear what we want students to communicate to us. We haven't
100 been able to get that message across, it's just been a vague, we can't answer your
101 query we have to be more specific with regards what we want students to inform us
102 of

Transcript 6: A06

1 I'm in a very small team, there's just the two of us, so that team hasn't changed in the
2 time I've been here. We are part of a wider team, it can be a little confusing at times
3 as we don't really converge that much. We do have some communication with them
4 but our daily roles aren't exactly the same. There are two of us in the office and we
5 do have very different roles, what we do the other one couldn't necessarily do. So
6 what my manger does is not what I do and what I do is not what she does. So we are
7 part of a team but we can't cover each other.

8
9 So it's a little bit difficult when one of us is off. So that's the main problem that we
10 encounter. What has changed is a huge increase in workload due to the voluntary
11 severance. So, when two people left the wider team in particular I got lumbered with
12 a huge amount of extra work and it can create hard feelings when other people don't
13 have an extra amount of work to do. In terms of the people leaving I didn't really
14 have much to do with them, one was in a different team and one was working alone.

15
16 The impact of them going has made tangible changes to the team how people feel
17 about their work and where work actually sits now. There's a bit of confusion about
18 what's going to happen in future to do with the restructuring of the School you hear
19 lots of rumours coming from different places that there are going to be changes to
20 the Faculty, that there are not going to be changes to the Faculty, Faculties will exist,
21 Faculties won't exist and it does create some sense of unease because no one seems
22 to know where their job role is going to sit if their job role is necessarily going to be
23 the same, whether you are going to be moved to a bigger team or your team is
24 going to get smaller, or we are going to be given different roles to do.

25
26 So that is something that is always lingering in the background. I think that's the
27 most unsettling thing about working in a large organization, knowing that some
28 change is afoot but not knowing how it's going to take effect.

29
30 It's quite difficult to talk about as there's quite a lot of animosity in the team certain
31 people have the same work ethic and actually get on with each other where there is a
32 problem is in the middle management where people do not get on with each other
33 and it affects everybody else because you are supposed to be taking your standards
34 of behaviour from those above you and if you see a lot of fighting and to some
35 extend pettiness it doesn't really encourage us.

36
37 So that can be a problem and create divisions in the team the majority of people
38 don't want to get drawn into, it can happen and it's very disruptive and can stop
39 people doing their actual job. In some teams it works being in a large office, being in

40 a large team when people have a similar work ethic and working towards a common
41 goal. But when there are a lot of different factions it gets in the way. It causes a lot of
42 additional stress and means that people can't get on with their work. Since coming to
43 this organization I realised that there were problems with the team the wider team.
44 There are certain divisions that some people are on one side and clearly some people
45 are on the other side and without wanting to you can get drawn in to being on a
46 particular side and you don't want to be a part of this you just want to get on with
47 your work.

48
49 It's something I haven't seen in other workplaces as much I've seen here. It's not just
50 concerned with our team other teams in the organization people I've been friends
51 with across the organization they've said that sort of thing does go on in their teams
52 for instance an office in another Faculty recently had three people leave one team
53 there seems to be a similar problem with middle management, mismanagement and
54 questionable levels of work ethics. So it's not just something that's confined to just
55 our team. It could be something to do with the organization, it's a bit of a strange
56 organization.

57
58 The way the students behave. There seems to be a problem with people who have
59 been here for a certain amount of time, not liking change and not adhering to
60 change. So if something comes in as a new way of doing things they don't like it and
61 won't really start to use it themselves but they will impose it on people directly
62 beneath them so those people have to adhere to change but some people are
63 exempted it's taken for granted that they will be allowed to be exempted. It's just
64 taken for granted that they won't need to do it.

65
66 There does seem to be a lot of that in the organization, from what I've heard there
67 does seem to be a lot of unhappiness in the organization, some people tend to leave
68 some people without other jobs to go to because they've got to the point where
69 they don't feel the organization is supporting them they don't feel that things are
70 going to change for the better and they feel that they have no other option but to
71 leave. Sounds all very doom and gloom doesn't it? There are obviously good things
72 about working here, the majority of people are really very nice.

73
74 I would say that there does seem to be quite a distinction between academic staff
75 and administrative staff. So whether you work closely with the academics or whether
76 you don't, it does seem that they have certain privileges that we don't necessarily
77 and if you do work closely with them you often find that they don't really have an
78 understanding of what your job is. Basically the ethos of working a 09:00 – 5:00 job
79 so you are in the institution for 40 hours including lunch every week, you are at your
80 desk you are doing work all the time and they still expect you to be answering emails

81 in the evening or over the weekend, because they do it and they see it as not being
82 above and beyond but at the same time they don't have to be on site for that many
83 hours so there does seem to be a bit of a disconnect in the levels of understanding
84 of what is done. Some academics I feel that when they are taking on administrative
85 roles they see it as maybe beneath them. So they don't see our job as valid as theirs,
86 which can be quite demoralising sometimes.

87

88 Obviously we know that they work hard and they have trained for many years to get
89 to the level that they are at but at the same time you sort of feel that you are being a
90 bit hard done by, because at the end of the day you are earning a lot less than they
91 are and you don't have flexible working hours, as flexible as this organization is, it
92 does allow you to take time off or work from home or work split hours or whatever
93 you wouldn't have the freedom that an academic does.

94

95 So there can be a bit of unrealistic expectation especially in my job I cover a huge
96 amount of people so looking after six departments worth of people it sometimes
97 makes me feel like I'm spread very thin. So if I'm not there it doesn't get done. If I am
98 there and somebody wants something and I'm dealing with somebody else in a
99 different department or the same department it's not really understood that their
100 query has to wait and they'll have to wait their turn, quite often it's I want it now, why
101 can't you do it now, it only takes a minute. There's no understanding that actually
102 this person has to deal with many different queries and many different tasks for a
103 hundred staff members or more. So I think that the expectation can be quite
104 unrealistic.

105

106 The structure that we have in our faculty is different from the structure that is
107 operating in the other two faculties so we are all very different, we have different
108 amounts of staff members in academic support and student support and each
109 academic support office does different tasks than the other one so the things that we
110 do, so there isn't really any standard of work tasks.

111

112 I think sometimes it would be a lot easier if there was because you would then know
113 exactly where you stood. In theory the job descriptions are all the same but we don't
114 exactly do the same tasks and we are not expected to and our team is smaller than
115 many of the other faculties even though we have the middle amount of staff to
116 actually support so we have fewer resources basically, that's what I'm saying.

117

118 What about any significant technology changes?

119 There haven't really been any I mean, since I've come to the role I've implemented a
120 better filing system, electronic things like a staff database and maintaining other
121 spreadsheets, I've tried to implement all of that but it's not always something that's

122 used, so it can be a bit of a struggle – because you can take a horse to water but you
123 can't make it drink. We don't have any interfaces that are implemented across the
124 whole college. Recently I've started using ResourceLink and that is a really horrible
125 system to use that you are locked out of for half of the month, so you end up doing
126 all your work in two weeks, it is a struggle. Obviously that's the way I've been using it
127 and I've only been using it for the past two months, so I've not known it to be
128 different from how it could be. It raises unrealistic expectations^{OBJ}.

129

130 And what about your teams identity?

131 It's quite open to interpretation. If we are talking about my specific team of just me
132 and my manager then there are clear tasks that my manager does and there are
133 other tasks that I do and we do not cover each other's work. I've asked if I could
134 cover my mangers work while she's away but it's never really been explained to me.
135 And when I'm away none of my work gets done. (Our identity) is quite vague, I've
136 only been here two years but my manager has been here over two decades so a lot
137 of the academics that we deal with have also been here a very long time so having
138 only a small percentage of them appointed since I've been working here, they have
139 their own perceptions of the office, based on what it was five years ago, ten years
140 ago which doesn't necessarily change even though new people have come into my
141 role. For a long time when I arrived...

142

143 Why hasn't the perception of what the office does changed?

144 I'm not sure exactly, I don't know but there is, academics don't necessarily change
145 that much, I mean the fact that they are not here all the time every day is very insular
146 in that they come in they teach their class, they do their office hours they go away
147 they don't really behave as a team they are not around our environment all the time
148 and certainly not all together so they come in and get a snapshot of what our office
149 is and then go away and it sort of doesn't really change over time. And in terms of
150 the departments we service only two of them are nearby, the other four are further
151 away or in a different building so they don't come into us very frequently at all, so
152 they may not see any changes.

153

154 When I started here I was referred to as the new A----, as though the role is what's
155 important and not the person, which is demoralising and your merits are no more
156 than the previous person in the role beforehand. A lot of people in this organisation
157 have a long memory. So as I said we do very different things in our team and the
158 workload isn't really evenly distributed. We are quite different from the other teams
159 because we are such a small team we don't often interact with other teams and
160 because of the animosity in team especially in our Faculty there doesn't seem to be
161 much willingness to interact as part of a bigger team and sometimes it's easier not to
162 try if it's going to end in unpleasantness, it is a bit gloomy. I would predict that some

163 people might leave through unhappiness or because they feel like they are not going
164 to progress in their job roles.

165

166 I predict apart from that we will stay pretty much the same and unless there is a
167 massive restructuring peoples job roles will stay exactly the same. In the time I've
168 been here, three years nothing has really changed. I think it will be a good thing to
169 be restructured because the team will never be efficient we will never be able to see
170 past the disruptions and arguments of the past not everybody is like this some
171 people are able to change.

172

173 The question is how the restructuring is done and whether people are consulted or if
174 they are just told from now on you are going to be doing this you are going to be
175 working with this person if there's no consultation on that then that's when people
176 get really unhappy and go to the union or decide to leave. It has to be handled
177 sensitively or people won't take to it they won't see the benefit of it and think they
178 are fine as they are. From the recent questionnaires sent around I think we can see
179 that things are not alright as they are and only a small fraction of people think that
180 they are. I think I'll leave it there.

Transcript 7: A07

1 At the beginning of this transcript MW is explaining the annual fee for the SID software.
2 The interview had started about two minutes earlier but the recording started after the
3 beginning of the interview because the original intention was to take hand written
4 notes. After asking MW whether it would be OK to record the interview MW agreed
5 that it would be.

6

7 £28,000 per year I've got a suspicion that we pay for a test environment as well, so it's
8 approximately £30,000 per year.

9

10 What was the nature of any disagreements relating to the contract from scoping
11 through to procurement?

12 I think it was how wide the scope should be, I think the team wanted quite a wide
13 scope I think portfolio board and EB wanted a more pragmatic approach. I think DC
14 and I – I think the team were quite aligned I don't think there were any real
15 disagreements amongst the team but I do think the team wanted a wider scope than
16 EB wanted.

17

18 I think EB wanted, just get it done do something quick I think the thing that kept
19 coming down was don't do something huge now because you've never run a student
20 information desk before, so something smaller learn some lessons and then when
21 you've learnt them come back to us if you want to do more and we can do it in a more
22 informed way rather than to do a massive project now.

23

24 So I think the information always coming back was, do something, learn lessons then
25 come back rather than try and do everything from day one, which is sensible but I think
26 the project team thought no, once this is in no once this is in no one's going to give
27 us more money. It's going to be done. The danger is, we've got a Student Information
28 Desk now, now do something on the web or do something on something else why are
29 you still doing this project a few years later.

30

31 That was the only area of disagreement that there was, in the end the only decision
32 was to do something pragmatic to hit the April deadline and that's what we did and
33 that's where we are. I think that was the only issue.

34

35 I think some people found they had slight difficulties working with M and they were
36 getting a bit more personal but I don't think there were any real disagreements but I
37 think she had an approach to project management which rubbed a few people up the
38 wrong way, if you know what I mean? Maybe not a bad thing maybe but I think that

39 relationship didn't always work the way we wanted, but that was what it was, and that
40 was what she was here for and it got delivered.

41

42 I think the team worked together very well I don't think there were any particular
43 disagreements in the approach we were all unified in our approach.

44 Having flicked through the IT paper here I do note that at some stage there is a
45 statement in here saying a very long paper – I don't know how anybody was meant to
46 read it – but buried at the very bottom on page 17 or 23 is a one line LIS
47 recommendation which may be in the executive summary, I don't know which basically
48 says we recommend not procuring the system and using some of the stuff that we've
49 already got on site which is Hornbill and support works, which is what we use for IT
50 and interestingly Quali which is the library management system, I'm not quite sure why
51 he would have, but anyway there is that comment in there saying that we don't think
52 there should be a procurement that we have got tools on site to already do this. But
53 obviously that was rejected at some stage because not long afterwards we started
54 doing the procurement to buy stuff of which Hornbill was one of the vendors, but they
55 didn't perform particularly well.

56

57 And it might be interesting to say that both Hornbill that we currently use for our IT
58 Helpdesk and actually the BMC Remedy product that we now use for SID they are both
59 used as IT Helpdesks and it has been our aspirational really to take SID and take the
60 guts of SID if you will to replace our IT Helpdesk, because our IT Helpdesk isn't very
61 good at all.

62

63 That's a separate conversation but it doesn't work very well for requests the email you
64 get back is drivelsome you will often get email back with IT request FO493 it doesn't
65 tell you what the request was, you've told me it's closed but you haven't told me what's
66 closed. It's closed – is it? It doesn't work particularly well.

67

68 BMC Remedy is very well known as an IT Helpdesk that's what it is Column then
69 customise to be a student information desk we would like to take that and replace our
70 IT Helpdesk with it, which we were hoping to do this year. We've been quite short
71 staffed all year so we just haven't had the capacity to do it. So we will probably do it
72 next academic year replace the IT Helpdesk and the idea would be to take SID and
73 replace the IT Helpdesk with a version of SID if you see what I mean?

74

75 What's the staffing resource needed to run SID?

76 It's quite low on IT it's less than half a person because it's all hosted there's not a lot
77 for us to do and it kind of takes care of itself it runs well and for the tweaks and
78 modifications we need to do yeah a lot less than half a person. But G who used to be

79 here he used to do this and a couple of other systems at the same time so it wasn't a
80 major hit on him. So yeah it's pretty light.

81

82 Were potential users involved in the process?

83 That's a good question, I don't know I can, I would have thought so I would have
84 thought that's what they were doing, yes I imagine they were. CN was the one most
85 involved she came to a lot of the initial conversations we had we went to see Kings,
86 we went to a lot of site visits and things as well.

87

88 I'll find out all the other information for you and put it online somewhere.

89 If you talk to AL about the implementation and NC obviously he did a post
90 implementation review. So he would be able to give you some feedback about how
91 it's bedded in and I can do more digging on where the ideas initially came from. There
92 must have been some initial papers, there must have been some papers that went to
93 EB and portfolio board, I've probably got all of those somewhere, I will try and dig
94 those out. And if at any point you want to pop back a talk.

95

96 We've got a lady at the moment I don't know if you've met her, AW? She's kind of
97 looking at two things at the moment the student intranet that we are going to deploy
98 that we are looking at and the student record system UNITE and where the pain point
99 are in that and that's what she's finding (too much information) so you go and tell
100 somebody, look at student records and then yes there are some obvious people in
101 that stakeholders in that it just spirals out everybody at some point touches on it. So
102 she's really struggling to try to find out who are the right people are she should be
103 talking to.

104

105 She might be an interesting person for you to talk to as well because of the work that
106 she's doing in terms of student journey and you know, student record system that kind
107 of thing. She might have some information that might be useful.

Transcript 8: A08

1 Were you involved in the procurement?

2 I was involved in the sense that I was an advisor I would go along to some of the
3 presentations and people on the panel would talk to me about what I thought and my
4 opinions and they would go away and go through point scoring and work out what
5 they want. So officially no, I wasn't involved in the procurement, unofficially I was
6 whether they listened to any of my opinions I don't know.

7

8 So from the procurement where we are having this system through to what we
9 delivered I was initially involved quite heavily and then stepped back a bit as G took
10 over most of it.

11

12 It changed scope quite a bit, I'm not sure whether that scope changed in the final
13 stages of procurement, because initially the idea was a central point to mirror the
14 central point over in the new North Block. A technological HUB where students would
15 get all their information and all their jump points on. So anything they were using
16 electronically they would go to one place and from there it would be clear where they
17 go, what they use.

18 So the scope was changed so we could deliver in three months – the original scope
19 was a fully developed CRM with a portal technology involved so a landing page with
20 all students going to that would be refreshed with targeted information for that
21 student and then part of that, the service desk as well, and then within that there'd be
22 this CRM technology that you could initiate conversations target people with
23 information.

24

25 How long was that planned to take?

26 I think originally it was going to be an 18 month project but I think that there was a
27 feeling that there was concern about it not being going up to the wire not being ready
28 and stuff like that there was delays when it started. So we started the project about the
29 end of November to go live there was just about three months. So because of that it
30 was scaled down to our service desk. Which is why we ended up with a service desk
31 rather than a CRM.

32

33 Initially we were looking at more CRM stuff from Microsoft, er, I can't remember what
34 it's called, Microsoft CRM platform and getting a third party to develop a platform on
35 Dynamics – that was one of the options, there was Sixes Tribal service desk which is
36 mainly just a service desk like we've got, there was another one which was more of a
37 portal and it was a portal with a service desk in it, I can't remember now, because of
38 the final scope it obviously favoured the Salesforce service desk side of things so we
39 initially had some scoping days with the vendor that helped us.

40

41 We had a vendor called Column, they are not a vendor they are a consultancy that
42 enable, that implement solutions, so they implement Remedyforce which uses an
43 application by BMC that sits on the Salesforce platform. So Salesforce online platform,
44 BMC have written something called Remedyforce which is a cloud based solution and
45 that sits on Salesforce that is for service desks and Column are a specialist in
46 implementing it and also configuring it.

47

48 So they came in and did some training and the perception at that point was that we
49 would develop a service desk for all the different teams across the university and end-
50 to-end one common entry point, Admissions through all the way to online enrolment.

51

52 It became clear that the scope had to be narrowed somewhat because of a couple of
53 things one is the way the licensing worked on Remedyforce means you had to define
54 all your customers and because of that enquirers and applicants expand that too much
55 so the scope was narrowed to enrolled students essentially. Which has led to some of
56 the limitations.

57

58 There was a decision made in the implementation that I wasn't involved in it was after
59 I stepped back a bit and was taken by the senior user at the time C and G that anybody
60 who was in Remedyforce basically SID so it was an open system which obviously made
61 the permission sets easy and simplified the implementation and also the ethos was if
62 we are doing this we don't want to be hiding any information about anybody the
63 Faculty Office or the department of history can't see the information that Registry can
64 see the idea is it's meant to be a tool that a person in whichever team can see all the
65 information and history of the interaction of that student while they're here.

66

67 And I think that's where it came from that the initial statement or initial requirement
68 or overriding requirement that I remember was, people were fed up with students
69 coming up to their desk saying I've been sent from so-and-so, so-and-so told me to
70 do this, so-and-so told me to do that, and there was no trail of any of any of this
71 nobody knew what happened nobody knew that the student had come in last week
72 and spoken to one of their colleagues. Unless one of the colleagues was sitting there
73 they wouldn't know anything about this so there was frustration in students getting
74 frustrated and there was also a little bit of mistrust shall we say in that the student was
75 actually telling us what they had been told and not just making stuff up so they got
76 something done.

77

78 So I think the initial aim was to make sure that when you do have this information then
79 it's recorded you can see it, this is the thing where I'm surprised still that some people
80 just don't get the worth of it. Because it wasn't dreamed up that bit of the --- I think

81 the whole idea of the HUB was dreamed up by somebody who thought I would be a
82 great idea to have one central place where students can do their own thing, but the
83 idea of recording the interactions of the students so that its trackable you can see
84 what's happened, you have a history was specifically out of administrartors, faculty
85 staff and some Registry staff being fed up not being able to see this.

86

87 There was a day that DC arranged where loads of people turned up across the board
88 Finance, Registry, Faculty staff to do various exercises to work out what the biggest
89 problem was dealing with students and probably the clear thing was they wanted a
90 system that enabled you to see what a student had done previously, have a way of
91 tracking it have a way of seeing all this information.

92

93 I think the flip side to that is people didn't think or didn't realise that in order to get
94 that information you need someone to enter that information into a system and I think
95 because it's a relatively straightforward service desk it it's probably the easiest almost
96 straightforward implementation you could have done on this service desk, there's no
97 complexity in it to confuse people but because of that – well there is some complexity
98 because it is a new system, adopting the new interface – but because of that it does
99 rely on some manual input, entering stuff making sure that things are in the right
100 queue and answering all the queries, making sure that all the queries have been
101 resolved.

102

103 And I think because I suppose at this point there isn't the history built up then you go
104 and put everything on a student in SID you are not really gaining that much, I can see
105 why they are saying why can't I just do this by email? But in two years' time if you'd
106 done that by email and that student is still asking the same questions, you are still
107 answering the same questions – the information does not disappear out of the system
108 (unlike email).

109

110 So even though the student might stop being a user of the system you can still see it
111 there, that student comes back the same person will be in the system you can see the
112 history of what that person said on their undergraduate programme when they're
113 doing their postgraduate programme so the history will be a benefit that takes a long
114 time to come through. So in a sense of the cycle they can see when they go into SID
115 they can see history in there that matched up to their complete academic record in
116 UNITE, it builds that picture inside it.

117

118 So that was the conception I think. How it was implemented, the detailed
119 implementation I stepped back a bit from, there was obviously a lot of user groups
120 trying to work out through me, C, G what the terms of reference should be how it
121 should be extended further and supported and I think that was a sticking point.

122 Essentially we'd had a project agreed we were doing the thing and then as we got
123 towards the end of it, it was a thought of how do we keep this working how do we
124 maintain that, we'd already done the tender and bought it put it in place and it was
125 already in place, so we didn't align everybody before you could argue that people
126 aren't still aligned.

127
128 So I think it was relatively smooth as projects go there wasn't much delay in it there
129 were sticky points – so there's no server installation here, it's all cloud based? – that's
130 one of the simplifications it's cloud based the complication with that is there is an
131 integration with the identity vault and integration with UNITE was built around an
132 additional server that we've got with a tool that pulls information nightly that was a
133 bit complicated there was part of that G beat his head against a wall about it because
134 it, it, the identity vault became a single point of failure for quite a few systems especially
135 SID so if a student isn't correct on our IT system, identity vault they can't get all the
136 benefits, and if we are putting in processes where they have to use that system to talk
137 to us it cuts their arm off quite heavily so there's a lot more pressure on things that IT
138 got away with in the past to be right, I mean that 's exposed in other ways because
139 more systems are single sign on now, more and more systems are authenticating
140 directly against the vault so whereas previously SID or systems like that, that might
141 have had its own inbuilt users that can create their own account, you can't do that now.
142 It has to be in the vault it has to come via an official way, it has to be built on a student's
143 record so a student only goes into the vault when they're in UNITE with a certain type
144 of record.

145
146 There's a status in there, you only go into SID and are active in SID with a certain status
147 so there's more reliant on a rigid process. So it seems to be OK but it did require quite
148 a bit of beating out head against the wall, well for G certainly.

149
150 Was there a project board?
151 There was actually a PMO project manager. The PMO had a project manager who
152 brought it to who reported to a project board on the progress of this throughout. I
153 think L was on it. I think L was on it. I can't remember the name of the project manager
154 which is terrible. But yes there was a project board. Project reports each month on
155 progress that started before the implementation started so back to October. From the
156 point where we actually started implementing it, it was about three and a half months.
157 Which was tight.

158
159 The initial idea was to develop it out to be a fully-fledged all services about ninety
160 services to be developed and released so our students information should more or
161 less be all there, there would be a form for a given type of request for all of these
162 things with a process that meant depending on what the student selected or were

163 asking for we did different things in the system there was less impact on, there are less
164 of these incidents, I think at one point we were not meant to have incidents it started
165 out where it was not going to have incidents it was just going to be service requests.
166 It became clear that if we only had three months we couldn't develop out all if the
167 services there were ninety in there or something like that, so I think we ended up with
168 twenty or thirty key ones. The idea was that someone like C in that position could
169 develop more with support from my team and the CAB making decisions about what
170 we should do. Which is where it stalled a bit and the momentum has probably gone a
171 bit which is why some people are maybe feeling 'what is the point of this?

172

173 The idea is if everybody is in and signed up for it and there is the right people in place
174 because we don't have a SID manager anymore, if there is a SID manager in place then
175 there should be someone with a strategy to develop SID so that the service desk build
176 up a richer picture of how a student interacts with the university. And that would then
177 mean that instead of basically doing what's in an email it would be guided in a way
178 where the student would come in and exactly the right information is in at the first
179 point and it's gone to the right person and the right person makes the decision.
180 Whereas we had a bad experience with tasks and that flow if it's done right then you
181 could have a relatively good workflow in the Remedyforce. Student submits a certain
182 type of request it goes to one team, a click there is either two or three teams working
183 simultaneously or it just automatically goes off, does various things and is only
184 resolved when everything is done.

185

186 There was another key concept behind it that has sort of fallen by the wayside, it's still
187 there in a way in that there was meant to be a team alongside SID and that team would
188 have responsibility for every incident that came in in the sense that it would one point
189 that the student went to. We would say to the student, OK we'll deal with your query
190 as in the whole university and that person, that team would be responsible for making
191 sure that incidents don't go beyond their SLA. That was meant to be one team main
192 ownership and lent it out to other teams who could do their speciality they would
193 then say, come on I want this back or go back to the student and the student goes
194 back to one person, the same person all the time and that's not quite there now. Now
195 it's more of an acceptance that there isn't a specialist team in place. No new people
196 were appointed no new teams in place.

197

198 There's a Registry team in place as the initial gatekeeper but really all they are doing
199 is circulating the queries in the same way that queries were circulated by email.

200

201 Isn't it not the idea for the HUB to become like this?

202 If they do appoint a HUB manager who has responsibly for SID that would get it back
203 on track. I think that would give you more of the drive more of the perception of a

204 different way of working things and working differently for a reason so that person
205 that would drive a one stop shop mentality we can deal with this, specialist teams
206 would deal with the specialist parts of the query, not have to have students just walking
207 up and saying do my bit now. It would be all coming in everybody logs it there's no
208 jumping the queue they just work on their queue. It does bring a certain amount of
209 anonymity and a lack of the personal touch, but it does ensure perhaps a more efficient
210 way of dealing with queries.

211

212 As to whether the position and layout of the HUB is going to facilitate how it should
213 be that is unsure, I have a little bit of concern they've put it in a corridor partly hidden
214 away it's not quite so interactive as I thought it was going to be I thought there was
215 going to be more of a stand up bit with people walking around saying can I help you
216 with that and it does seem to have gone along the lines of have you got an
217 appointment – sit in this queue, doctors surgery approach there's a couple of self-
218 service points, students can sit down and use it.

219

220 I don't know we'll see how it works. It certainly will be better than not having anything
221 the people that are in there will be the facilitator that helps that student to get what
222 they need out of the university without having to chase it around themselves.

223

224 I think that's the bad thing in the past the student was going I've got to go over there
225 or over here, it opens yourself up to abuse because people work it out or who are
226 clever work it out and say I've been over there already and the ones that aren't get
227 annoyed coming back saying I spoke to you about this last week I've given you all my
228 details why do you need it again? So it should be a better experience. I know there are
229 holes in it a bit extenuating circumstances and things like that where we are saying
230 everything must come through SID – oh yeah and apart from, you can't really be saying
231 apart from – I've got another meeting now... end.

Transcript 9: A09

1 So the HUB, the vision was pre-ordained to a certain extent. The building itself had
2 been planned for a long time, the original vision I dug out a quote from the
3 consultation document, the Director and the university Registrar at the time, was this
4 notion of a space where students could go and ask most things and get an answer
5 about those things. And even then the notion of there being a real space and a virtual
6 space and both things being as one, if you like, and for me, the vision for the HUB I
7 don't think has changed an awful lot, I would be an advocate of that approach that
8 would seek to minimise students being signposted on to various offices around
9 campus and the view that people who are the custodians of the knowledge that
10 students wanted to ask about should be very accessible, and able to, to cover a
11 multitude of bases.

12

13 So the notion of one specialist to go and see for one particular piece of the jigsaw, if
14 you like, you might be tucked away in a different part of the building, then twenty
15 minutes' walk away or Vernon Square, I think is problematic.

16

17 Um, certainly in terms of the student experience. So, so for me the vision for the HUB
18 or HUBs conceptually for me, is always about improving the student experience. Um,
19 I, um, er, also, would see that some aspects of what the HUB might deliver are very
20 mechanical, you know how, do I get a transcript, how do I you know change something
21 in my student record. And some things are more, um, deeper, and personalised to the
22 student, and that's where the balance between what the HUB team can provide, needs
23 to be kept in focus.

24

25 You know, it's how do I pay my fees? Um, I can't afford to pay my fees, there're two
26 different things and the advice and guidance that we'd expect from the team is to
27 handle both types of queries in that particular example, um, of course the degree to
28 which we develop a team, train and support a team to be kind of all core players, using
29 the sport analogy, is part of the challenge.

30

31 Um, er, and, in essence people who work in HUBs, um, become much sought after
32 professionals because, they become very knowledgeable on all parts of university
33 business, very few other people have the luxury of having that breath that oversight of
34 the student experience, and the type of um, queries that relate to business processes,
35 um, I guess in pre-HUB times they were siloed, um, er, often new ones based on a
36 person, an office, a department. So it's not easy, but I think the transition is an
37 opportunity to, to take a real birds eye view, um, of our processes. Um, to enable
38 students to navigate our, our, systems, if you like, and their experience.

39 The notion of being challenged as a student of course comes academically, um, and
40 that's why students are here, so challenge shouldn't come about trying to chase down
41 a response to a more mechanical if I can use that word.

42

43 Um, of course there's issues around building a new team, in terms of organizational
44 and structural change, er, there are always people doing similar roles to those we are
45 looking to morph into this HUB approach which is of course a new approach, to a
46 certain extent. So there are some practical HR related issues like peoples roles
47 changing, changes to job descriptions, potential grade changes, potential, um,
48 structural changes, maybe perceived to limit or enhance progression and future
49 opportunities and development. Um, still some practical changes around the team and
50 relocation, um, physically and I guess if people have been working in a building for a
51 long time, the changes to their daily life, you know, which tube stop to get off at, um,
52 the time they arrive at work, those things become change in to the near future.

53

54 So, I guess there's those sort of changes for existing staff, as well as the team challenge
55 of being seen differently, and in this case much more in the spotlight, um, and, the
56 heart of the university, the physical relocation, is one of the big changes.

57

58 Um, people will be watching, people will know it's happening the School wide
59 consultation means that all sorts of people will have been aware of this, um.

60 Have concerns been raised by the people who might be going in there, about those
61 issues about those any of the issues you've raised?

62

63 Largely focussed on specifics of job descriptions. Um, and given that I suppose that
64 the majority of people we have within the team are from student records, um, the
65 changes aren't huge.

66

67 It's more about the connections with the rest of the Registry, how that interface will
68 work, um, er, and perhaps concerns about additional roles coming in and what that
69 means for a larger team, um how that will look in the first year. We are taking the
70 approach that it's developmental we are not expecting getting everything right on
71 move-in day, whenever that might be, I still don't know, practical challenge again, um,
72 certainly I would imagine that a year hence a years' time, things will shift and we will
73 have to re-focus and change from what we have learnt from the first year, um, of doing
74 this.

75

76 So it's not fixed its fluid. I think again that's one of the challenges, is asking people to
77 imagine what they do now, um, and also to imagine what they will do in a years' time
78 or two years' time, both for themselves personally, them as a team and the whole of
79 the university.

80 And from my point of view that fluidity is part of change, change is a constant, um,
81 and that's partly a mind-set thing, it's different from what someone might be used to
82 but we'll have to keep evolving.

83

84 How do you deal with the merger of teams into a new team and create a new team
85 identity?

86

87 That's interesting because the team we are talking about making up the initial HUB
88 team, um, my perception would be they don't necessarily have such a strong identity
89 now, um, in that we've had some movement of staff a significant staff member left a
90 year or so ago, um, that left quite a hole in terms of who's doing what, we've had some
91 interim arrangements across Registry as a whole, and Student Records, we've got some
92 temporary fixed term staff, um, so it's already slightly loose, in terms of the formation,
93 and I think what the move into the HUB creates is to firm up some of those roles
94 existing people moving from fixed term roles to permanent roles, er, um, and, um, or
95 not, people may choose not to, not to stay but that sense of things being a little bit
96 loose already is perhaps not a negative thing anymore because it's now a chance to
97 firm things up and move things forward and into a new balance like.

98

99 So, I think while we are on that journey I think the notion of identity and strategies for
100 supporting the idea of a team identity I think at the heart of that is a section of this
101 team. Is it perceived as being very student focused dare I say customer focused?
102 Looking at customer service excellence or not, I don't know what the opposite of that
103 is, and certainly looking to filling posts, new posts moving forward that's the language
104 we are going to be using.

105

106 So, people who are seen as committed and back the cause of enhancing the student
107 experience, um, at the same time we do have roles that are more – I don't like this term
108 – back office in terms of not necessarily being in the front line all of the time. And so
109 there is some flexibility in the model to allow staff to choose and have a preference as
110 to what they would rather do as their main activity.

111

112 Um, while supporting at busy times there's an element of upscaling our present team
113 in the HUB itself, um, where needs be.

114

115 It's important I think to have that flexibility in the team as well and to reflect that in
116 their job descriptions, um, I think the last thing anybody wants is to have staff moving
117 into a new role in a new team with a sense of it not going to work fit, I think there's no
118 element of what we are doing in managing these changes that is forcing people
119 to um, to choose job A or job B.

120 We are still ensuring that people have that personal discretion so actually I'd rather be
121 in this particular role in the Registry office it's downstairs from the HUB itself or say I
122 love working with students I want to be on that front line and that's where I want to
123 spend most of my time.

124

125 I think that's going to be important to maintain moving forward, um, I want to have
126 enough flexibility into the future that might enable us to job shadowing some, have
127 the experience of what that's like.

128

129 I guess not having a HUB on site before people don't actually know what to expect.
130 Plus working in the environment in Vernon Square is wholly different to what it's going
131 to be like anyway in this new building. Um, that's what I mean partially being in the
132 spotlight being accessible students will be able to sit and have a cup of coffee and
133 think I'm going to go there and ask this question that's been nagging me for a while,
134 and they will expect a prompt answer. Um, so, so, in very simple terms it's a significant
135 shift in to what we can do from what we currently do.

136

137 Um, quite a lot of thought is going into development needs for the team moving into
138 this new model. Um, and from the basis of expecting the team to know lots about lots
139 and to understand that what they need to know about isn't going to be in the room
140 called the Student HUB.

141

142 They'll need to know about stuff that happens in all corners of the university and
143 faculties, um, in terms of student accommodation in terms of how the advice and
144 wellbeing service works and a whole heap of other things um, and so we are working
145 with HR to put together some training packages but I think it's important that team
146 understands how important their work is to the rest of the university, the rest of admin
147 services (can't hear the next part) but equally for the rest of the university, so, um, the
148 only way we can inculcate that is through workshop talks and building connections.

149

150 Again it's kind of a mind-set that whilst we have this thing called the HUB perhaps the
151 most important bits of the HUB in any shape or form is to connect the HUB to the
152 outer parts of the structures. So the connections to the HUB through registry into the
153 faculties and departments, into other services are going to be absolutely crucial. I think
154 one of the questions here is how do you measure success? (Cannot hear the next part)
155 and the outcomes of those connections will I think in time be our measure of success.

156

157 The HUB doesn't do away with the bits that connect it, it just means that the
158 connections between the various pieces of the jigsaw have to be very strong and
159 communication channels have to be working, um, a student generally wouldn't really
160 care who manages what or what the structures are who reports to who and students

161 want what they want at the point of need, um I think for all of us across the university
162 that's something for us to bear in mind because we can agonise over structure as in
163 reporting lines, who's a manager and what grade, student's don't know that and don't
164 want to know that.

165
166 They just need to know the answer to their query and have someone working with
167 them through that process. So, I certainly see the need for um, skilled professionals in
168 these roles who are committed to seeing a query through. So an account manager or
169 case manager for more complex queries that kind of approach will be necessary
170 because we might need the person to ask the student to come back
171 in ten minutes and I will have found out I would have spoken to the right person to
172 help move your situation on.

173
174 Which is very different from saying I can't help you, that's not what we do in the HUB,
175 go and see Jonathan up on the third floor and he'll help you. I think it's that pillar to
176 post that we need to avoid. And avoiding that kind of experience significantly
177 enhances the experience. Things are not necessarily easier some of these things are
178 complex and challenging. They can be more seamless, um, and I think in terms of, um,
179 I've talked a lot about the physical HUB, um, of course you are interested in the virtual
180 world in what we have is the SID system at the moment, um, and many of the same
181 principals need to apply.

182
183 So, if somebody comes in through a SID query and then forms part of a queue a
184 student will expect a very quick response in the same way as if they were standing in
185 the physical HUB. I would think that the core team working in the physical HUB will be
186 able to or ought to be able to handle much of the queries coming into it through SID
187 in a similar way. But the SID system itself can also be an enabler or spoke between the
188 people in the HUB and the rest of the university, SID becomes a system that is not just
189 a query based you know, student based no response required – it's a, it's a mechanism
190 which staff can work more collaboratively more coherently in a much more structured
191 way.

192
193 And traffic is a positive thing to have to use in that regard um, it's a key tool for the
194 HUB team and for others to be using I think given the position it's got to in the last
195 year or so it's use is ready for the next catalyst to maybe kick it on a bit again to enable
196 users to think well actually here's now some other ways to use this, better ways to use
197 this in this new context. And I think that um, the HUB team and the managing of the
198 HUB the Acting Registrar will be you know giving this system a new lease of life or the
199 next catalyst push to say here's how it can be even more useful, having got it started.
200 So I see that as very positive.

201 Obviously it's going to be very challenging because thinking about structures and
202 change it's much more matrix than hierarchical, and flow of knowledge and flow of
203 systems and flow of processes is in a university like XXX University historically they
204 have been very vertically structured, silos mainly – I'm not sure how many times you've
205 heard silos in your interviews – for instance in January I spent the first month and a
206 half meeting all the staff in my directorate which is 90 or so people and at least half of
207 them without any prompting mentioned being in silos and how frustrated they were
208 so political and so deep as trenches it was hard to make the connections. So it's a big
209 shift so I think one of the biggest challenges is moving from what people perceive as
210 silos which actually are silos a matrix structure that encourages collaboration to sharing
211 information and knowledge across campus, that is a big shift.

212
213 But I think the HUB itself the physical HUB and SID itself a virtual tool if you like they
214 become mechanisms that those seams between the silos become extended and
215 stitched slightly differently, if that makes sense. We are never going to get rid of the
216 silos and in some ways you can argue that silos are centres of excellence or expertise
217 – that's true to a certain extent, so therefore the connections between these structures
218 are where improvements can be made.

219
220 How do you extend the influence out from the HUB team? You are bringing other
221 members of the university into the team.

222
223 So the influence of the easy bit for me personally is to say what else can the HUB team
224 service in the rest of the academic services directorate? That's not the exciting bit, the
225 HUB could make appointments for the careers advisors the counsellors that's pretty
226 straightforward it's the relationship with Faculty Offices with Faculty departments and
227 other pieces of the jigsaw I think just being here five months those connections aren't
228 particularly strong. We have not had time to make those connections strong I think
229 that becomes the next opportunity. How we go about doing that I think it needs a lot
230 of conversations it needs people who are developing shared understandings of what
231 we are trying to do. It does fit with top level strategy, because without a top level
232 strategy and operational plan underneath that how do we how do we organise our
233 administrative work and professional services work, say well this is going to empower
234 people to, XXX University to achieve this strategic stuff.

235
236 I am encouraged by the emergence of a strategy I suppose critically a learning and
237 teaching strategy is giving it some shape for what the future might hold as to how we
238 best support both those aims but we have other gaps to fill in between the operational
239 stuff on the ground and teaching. So practically lots of conversations.

240 I am an advocate normally for projects and people from different bits of the
241 organisation coming together and having identifiable goals. I am both encouraged

242 and slightly worried the approach that's been taken at XXX University with Portfolio
243 Board and the projects that have happened there I think the principal of that is very,
244 very good, um, I'm not convinced that the outcomes we've had from that investment
245 if you like, have been as strong as they were envisioned when started but I think the
246 approach to bringing people and objects with the right expertise um, is a strong one
247 conceptually. I wouldn't want us to lose that kind of approach. Um, Whether we have
248 chosen the right projects to invest in, whether they are big enough in terms of scale
249 and ambition, I'm not so sure, um, and I think although relatively small sums of money
250 what they might do is dilute impact across (cannot hear this part) and we might be
251 more ready for big bangs at XXX University in terms of change. And in terms of running
252 IT it can be big bang or it can be a sticking plaster, small scale lacking impact (can't
253 hear the next part) I think we are maybe caught between those two things. I think we
254 also can encourage shared working projects not just at Board level but in our own
255 teams. And so we are looking at services, we are looking two or three project ideas for
256 staff to come together from all the different services um, around thematic kind of goals
257 if you like, and I would say, and I would say equally important that approach with that
258 approach I would say there is the academic mission and professional services to work
259 to develop a better understanding of what we do in partnership. I suppose my initial
260 interaction is one of a master and servant model which is a little bit, um, er, what's the
261 word I'm looking for? A little be too I think actually, that, that, mind set I think it
262 obstructs positive progress and decision get made not for the right business reasons
263 or organisation reasons sometimes or decisions um, or decisions (can't here this part),
264 - which again doesn't help change happen.

265
266 Or positively need people to discuss things more openly and honestly and collegiately
267 and the right mechanisms to be there, and the right people. Um, I think there are some
268 aspects of my area of XXX University where, where the more questions I asks the more
269 elaborate the answers become in terms of explanations in terms of why things are the
270 way they are – I asked why is that the way it is? – the answer – and there's one answer
271 then there's another answer and you can keep going back and this concept that things
272 are knotted up – wicked problems – and there's a few of those – and taking apart an
273 putting back together again, some of it is down to people and personal difficulties and
274 some of it is organisational and some financial, so I think XXX University is a good case
275 for a research project (laughs).

276
277 The HUB idea is a relatively straightforward idea it's been done in other universities it's
278 not cutting edge anymore but it is highly relevant to our context it's inevitably safe but
279 there's still some complexity in it but the complexity is (can't understand this part) the
280 new building it give focus.

281

282 It's been an idea for such a long time um, staff won't believe it until I'm sitting at a
283 desk, they won't be able to picture themselves. Part of the reason we are taking a
284 longer term view is looking at the best way of using the space and designing a team
285 to work in this way. Certainly over the next year, two years, there will be continual
286 improvements all that stuff. Um, as long as that's communicated um, that's at least half
287 the battle. Being open about it. Where we explain and describe, I suppose it's such a
288 front line service for students, the students themselves again can't imagine this place
289 how to make the best use of it, it's very exciting.

290
291 Um, and ideally for me I want to have a team that is excited by that and can see
292 possibilities for themselves and can make a difference and make an impact.

293
294 One of the key issues in the new building for me is when all the plans were finalised
295 two years ago and the team has grown a bit and the focus of the work has changed
296 there will be disappointment beyond the HUB into other areas of the building now it
297 isn't actually the best possible use of the space and how it's been built and so on. And
298 for me I think two years down the line will people be standing at the same desk and
299 the same space possibly not because again we could think now that we are in the same
300 corridor as that service (can't hear this part) ultimately shared teaching spaces, and so
301 I think the shape of services may also evolve in response to this being in a different
302 space, that all sounds really vague and really woolly but in my last job when we were
303 designing a HUB the whole building was called the student HUB and one of the
304 practical examples we looked at our WP team if you like the access service and
305 essentially they're in different bits of the campus and we tried to put them all together
306 and this was seen as mainstream – so good practice – so we moved to general open
307 space, shared practical spaces to work with students, one of the interesting shifts the
308 staff had been used to in that case was they had been in an old house on the edge of
309 campus but it made sense to the students (to move).

310
311 So I think in trying we will see more transition in services as well, in some ways that
312 future wasn't envisioned in the design of the space. Which doesn't make it wrong or
313 not fit for purpose you know 5 or 10 years down the line what will it look like? Our
314 team and structures, what will they look like? But again having new people moving
315 into these new spaces we'll have a chance to think that through or possibly not. But
316 we are where we are so let's see where we get to.

317
318 So I think to summarise some of these questions I would say the new building as a
319 whole and the HUB is of course one room in the building essentially it's a catalyst um,
320 in day-to-day practical ways people doing their roles in different ways. If we stay
321 focused on this being about students and student outcomes and improving that
322 experience that narrative I think will get stronger.

323 The notion of stability and maturity of teams and structures as an observation coming
324 in I feel as though some people are just waiting for stability they are waiting for the
325 right systems to be in place, student records system for example, there's so much
326 disquiet about UNITE there's a review happening on that a project manager is looking
327 at it and actually if we do decide not to have UNITE anymore then that kind of fills me
328 with dread because that's a massive piece of change but people are just waiting for a
329 decision and similarly in terms of our structures people have changed, people have
330 left, people don't tend to hang around too long in roles here.

331
332 And it's never quite things aren't sufficiently developed enough to be going really well.
333 You know this notion of a high performance team whatever that might mean different
334 things for different people but I think to be a high performing team you have to have
335 a sense of maturity as a team a shared sense of expanding whatever you are working
336 on you have to have complimentary skills and structures have to fit together across
337 XXX University and certainly in my own area we are not there. It would be nice to have
338 that point of maturity as an organisation which is challenging, it's not just one bit that's
339 not run right it's multiple bits of the jigsaw in that they have some work to be done,
340 the structures themselves on paper are right but there are bits that need sorting out
341 but how long will it take? I don't know.

Transcript 10: A10

1 Where LG refers to whether there is a need for staff using IT systems to be formally
2 trained or whether the UI is good enough for them to start working quickly – or not.
3 We all use hundreds of applications all the time because we want to EasyJet we go on
4 to HotelBookings.com they're all fairly straightforward tasks that the system can walk
5 us through doing so you don't need to be trained to know how to use them generally
6 speaking although sometimes you find that, at QM they've got a password locker
7 where you set yourself some questions which means you never have to go to the
8 helpdesk to get your password changed. You can do it yourself, but it wasn't intuitive
9 how to use it and I messed it up.

10

11 But generally there's an expectation I think with technology, iPad's and things like that
12 you can use these applications without any training, you are right that you might not
13 be using all the features, so with the iPhone I didn't realise to start with that if you
14 pressed the ring focus dial you change the light setting and things like that but if they
15 [staff] are doing fairly standard tasks, I was thinking of training more about
16 understanding the context of what they're doing rather than the tools themselves.

17

18 Because in a way you can't you're not going to exploit the software unless you
19 understand the context, the challenge the task that you are doing, could this be done
20 better or was there a better outcome whatever that might be.

21

22 Where did the idea for SID come from?

23 So when I arrived the whole HUB project had been going on for some time but I think
24 at that point most of the work that had been done was analysing tasks that were being
25 completed kind of the task inventory had been done but I'm not sure very much else
26 had happened.

27

28 And the project had several, it was really a programme of work it had different strands
29 it had aspects of the physical HUB staffing, it had – did it have service desk in it? I can't
30 remember, it probably did, it had web pages it had various different strands in it and
31 what we agreed to do was kind of cut it down to the, what we were going to do
32 immediately and I had, I was very keen on this idea of in a sense having a virtual HUB
33 before we had the real HUB, um, although I think we quickly decided that we would
34 just focus on the tasks that were done currently by the Registry rather than beside it,
35 because the vision in the longer term of the HUB is that it would take all the student
36 facing tasks that are being done in the Faculty Offices or in the Registry team and put
37 them all together in the HUB but we hadn't really tackled that bit of – [telephone rings
38 and LG answers] – so we decided to just focus on what tasks were being done in the
39 Registry because obviously when we started, because what was going to go in people's

40 jobs if we started picking things up from the Faculty Offices but the vision was always
41 that they would be brought together, and you know the idea that eventually you would
42 need less front facing people and wouldn't have front facing people in the Faculties
43 and the HUB would deal with the whole thing, so we developed this idea of a virtual
44 SID, sorry virtual HUB that became SID.

45
46 I have experience of installing service desks and at Holloway what we had done was
47 take what was the IT service desk and expand it out to different services including the
48 HUB equivalent there, um, because once you start to report, A, you can start to see
49 what you are doing and then you've got a tool that can pass and escalate jobs around
50 and, I don't know if you are aware there's something called ITIL which is a framework
51 for managing IT services, obviously it comes from IT but there's lots of things in there
52 that you can use for other types of activities. It's this whole idea of you know
53 understanding what you spend your time on um, and then I did root cause analysis, so
54 if everything, so if everyone is coming in to print off their letter for council tax of
55 something why aren't you making that automated? So it starts to give you the whole
56 tool but then equally if you've got a complex situation you can track that it's got closed
57 off, so, so we started that, we started that project and they also continued with the
58 web so they did the web pages as well to upgrade all the information to bring all the
59 information together.

60
61 We dropped the other pieces of the project but then the original scope that Carol drew
62 up the um, I can't remember all the details because I wasn't heavily involved with the
63 detail bit and I probably wouldn't have picked the system that they picked, you know
64 they went through they went through the process and they picked it, I was very
65 conscious having done this before you kind of have to run one for a while to
66 understand how it works so I was quite keen that they didn't over-engineer it in the
67 first place because it would be better to start something simple but Carol did start to
68 over-engineer it, she wanted to do lots of different workflows and that was the bit that
69 was going to take IT ages to do and in the end we just agreed to drop all that.

70
71 I think she realised it was better to have just a simple workflow, you know there was
72 this idea that it reached activity, there would then be workflow but it was almost
73 putting too much automation and it was quite complicated to do that.

74
75 So that's kind of the background there was pressure to get it launched I think they did
76 get it launched pretty much on time in the end and then, um, I mean the challenge
77 was then Carol was then the driving force behind it. I think there was a concern that it
78 might turn off users but I don't believe that has happened, they've taken a huge
79 amount of calls on it, but I'm not aware how much Faculty teams are using it... [long
80 point made by interviewer] ...

81 It probably needs the new Academic Registrar to get the new structure in place, I mean
82 the other thing that will help actually is if IT move on to it as well because then there
83 will be another, if they are interested in it then they will be more engaged in making it
84 work.

85 It's all about customer service really, there's that whole thing of the fact that students
86 were sent from here to here and here to here and linked to that the ability to come in
87 once or email or whatever it is the problem and get it sorted out.

88
89 The external IT project manager, she wasn't that good, that's partially why I wanted to
90 wrap it up, because she was only here on a fixed term contract and if we'd extended
91 the project we would have had to keep her but saying it was the end of the project
92 and then effectively the next piece was really the staffing bit which needed to be led
93 by a manager really.

94
95 Chris started to do it but he didn't grasp it the way I imagined he would. I do think
96 there's an element of it that we started too soon almost. Because obviously with the
97 buildings taking three years we started worrying about all this stuff really of course in
98 terms of the spaces and things people did have to make decisions quite some time
99 ago, which also caused problems because everyone seems to have forgotten that they
100 were consulted on any of those things at that time, but actually in terms of people's
101 roles and how things are going to work, I think it created an overly long period of
102 anxiety for staff.

103 Actually, really it improved you could come in, in January and July was long enough.
104 They definitely started it all too soon, not the virtual bit I think that was good getting
105 that done particularly around the people side of things, so its created too much
106 uncertainty. Particularly for a group of people who don't like change, really don't like
107 change. And what's happened unfortunately is that the whingers have stayed and
108 other people have come in who are quite good, got fed up and gone because that
109 were fed up with the whinging [laughs].

110
111 I mean we are not out of the woods yet we really want different people, different sorts
112 of skill sets. Again one of the things that was really successful at Holloway was the fact
113 that they got basically they got new graduates who were really interested in students
114 who then learnt Registry stuff as opposed to Registry people forced out from the back
115 office to do front office work grudgingly.

116
117 One of the things that IT forgets is that they should be focussing more on the
118 outcomes, but it has been successful so, I'm glad to hear it's still being used and I think
119 as soon as we physically get in and that team is in place there will be a whole new
120 impetus to it I think.

121

122 Discussion about stopping using email.

123 Well there's something comforting about using email it's quite addictive actually. I did
124 try Yammer here briefly but no one cottoned on to it, because that's a very good way,
125 actually what's so nice about it you can actually get synergies because you can expose
126 things you are talking about but they might just see a headline that's interesting to me
127 and another thing is instant messaging for that kind of, instant messaging is probably
128 better than that. I must admit I tried instant messaging and you got email as well you
129 know it's difficult, but I use email less and less.

130

131 Discussion about stopping using paper registers and moving to electronic registers.

132 When you've got an IT service desk or something like that the HUB using it all the time,
133 because it will be the core of their work, normally it's just a bit of their work.

134

135 It does take time (for people to adopt a new system) my experience of installing a
136 service desk at Holloway, everyone used to call the helpdesk or email individual people
137 and we stopped all of that and it does take a few months, we made it really difficult to
138 get to anybody, just constant reminders and a campaign of pens and all sorts of stuff
139 just to get through to people to do it.

140

141 Discussion about awareness of SID amongst academic staff

142 No one here thinks any system will have longevity and that XXX University is good at
143 new initiatives but not finishing anything. Do you know what's just struck me that email
144 I sent around this morning should have SID as the contact?

145

146 Conversation about restructuring and Executive Board power.

147 There is a thing about we've got ourselves in a right old twist because we agreed to
148 this consultation and the unions, it's because of the unions, union power, and it's
149 obviously to do with the fact that it's very hard, we've had this conversation at EB,
150 because I, this is in the context of the IFM project in the end you know I was forced to
151 do something which I didn't think was the right thing to do it was political pressure
152 basically. Valerie's view was OK that what you proposed is the right thing to do but
153 we've got other battles to fight let's not fight that battle and at the end of the day I
154 could see it was a judgement and the best thing to do so, there's this EB struggles with
155 when it should be authoritative and when should be consulting and because if you can't
156 bring people with you there is a body here you know there was risk of a vote of no
157 confidence if you've got that kind of hanging over you it makes it quite difficult to, and
158 we don't really, and this idea that EB is this kind of union language you know Mill
159 Owners, you know we don't have that power we are only the executives of the
160 organization who have been asked to do a particular role its quite a struggle and I
161 think HE itself is schizophrenic about this because it's not that clear, you know you've

162 got shareholder interest the owner interest whoever who can then direct what's going
163 to happen that doesn't exist in the university because it is a collective in a way.

164
165 And if you can't bring that collective with you it's very hard. Now some universities
166 have become much more managerial but they've kind of been able to do that because
167 they've got less researchers, but when you've got a serious professoriate it's quite
168 difficult. So I can see how it might look from the outside but on the inside you are
169 dealing with quite complex issues and the reason we, because it was bizarre last year
170 before Valerie came because basically Paul was dying Nirmala was nowhere, and
171 actually Richard was all over the place so effectively so I felt like I was running the place
172 and there was very, very clear direction from the Trustees that we had to do something
173 about money so in a sense Graeme and I were leading the sustainability agenda. And
174 of course inevitably we were looking at it from a financial perspective partially because
175 of our backgrounds and because that was the bit the Board of Trustees were fussing
176 about anyway.

177
178 Of course Richard was very keen on restructuring but I just felt that was kind of moving
179 the deck chairs around rather than actually getting to the bottom of the problem,
180 because a lot of the problem is academics who aren't researching enough doing
181 enough and being paid full salary, in my opinion.

182
183 And actually its really interesting because Valerie planned an away day shortly after
184 she arrived and she wanted all this highfalutin stuff and as soon as we got in there it
185 was really good, I said to them let's talk about sustainability and it was clear that was
186 the only conversation because the finances were even worse after last year's
187 recruitment and not meeting target.

188
189 So, I'm not trying to justify it but when you are on the other side of it you are constantly
190 dealing with quite complex things. We do, do things we are successful we do move
191 things forward and although I think we are miles behind the academic administration
192 things like Moodle we were successful getting that in and actually quite innovative, so
193 there are examples we just beat ourselves up a lot and I'm aware that the last three
194 terms I've been distracted with the nonsense about the cleaners campaign which has
195 just taken a ridiculous amount of time. The fact that we've given them what they want
196 they want a campaign it's really interesting I've learned so much.

197
198 There's Sandy so his interest is his Socialist Worker's Party role, and his standing in
199 UNISON, he's not interested in the institution, he's playing everybody off the whole
200 time, and then you've got the three local reps of the cleaning staff themselves and I'm
201 more and more convinced that there's some South American Mafia going on and they
202 are probably funded from somewhere, someone who's paid £100 per week is holding

203 the whole institution to ransom basically. Richard's tactic is to have open meetings
204 with all the staff and they had the second one today and it finally looks like we've
205 created a schism between them. I should have sorted all this out but I haven't I've just
206 been messed about.

Transcript 11: A11

- 1 Tell me about the team you are in and what job you do
- 2 The definition of the team
- 3 There are two of us in my office
- 4 It does feel like a different team but we are separate but are obviously part of the student
5 support team, in terms of SID we were part of the initial roll out of the training of how it
6 should change and sharing the jobs around the Faculty Office but its meant that but I think I
7 use it quite differently.
- 8 Probably quite a lot less than other people I could understand the rationale for implementing
9 it something in one place for students to go to. The way I feel about my role is we already
10 had that.
- 11 Due to the physical makeup of our corridor where basically and luckily we have a a study
12 room for all of our students and we have most of our academics on the same corridor and
13 we have the admin support office physically on the same corridor.
- 14 I think my understanding is because of the physical proximity to the students in my role they
15 just pop in so people don't need to go through SID.
- 16 Um, I find as well because I know most of the students by name and they know me you don't
17 need to use SID. What has changed off the top of my head is that it's created a bit more
18 distance before SID we would be in contact (with Registry) what's happening with this
19 student what's happening with that student.
- 20 Because of SID and students know that they can deal more directly with Registry I don't
21 know what's going on there any more I don't know the time frames for things I don't know the
22 new people there when things are delayed I don't know why.
- 23 I'm not in touch with them as much as before. So that does effect doesn't affect my work as
24 much it feels like we are more isolated more distant. I used to know a bit about what they are
25 doing now I know very little about what they are doing.
- 26 I think there might be something about institutions and people becoming more specialised
27 and being taken over by technology I used to have a good idea about lots of different things
28 but now I've become much more specialised in my own job which I don't feel is a positive
29 thing. I can't answer questions so now I have to say you'll have to ask Registry or put a
30 question through SID.
- 31 There's the wider student support team which I would characterise as quite open to change
32 quite open to technological change which will make their job easier, Um I don't feel very
33 positive about SID.
- 34 Our centre has been asked to take on the admin duties of another centre as well as part of
35 the financial problems of the school so we have 50% more students than before from
36 another centre.
- 37 And as part of the promise of this was to mitigate the number of students was to say that
38 they will always go to the front desk or put a question through SID.

39 Which is fine but is not personally the way I like to work I'd rather have that personal
40 relationship I think its easier and for 90% of questions more effective.

41

42 But this is what he said but it never works out like that. Obviously some questions are put
43 through SID but it just became when none of the members of this particular centre know who
44 you are as a person they begin to feel isolated so eventually word got around, students
45 started coming up directly which I think was hard to avoid I think especially in a centre like
46 that where they have no one else we are the the admin support and were wanting to be
47 more supportive.

48 So that's an organizational change that has impacted on us.

49 So that's an organizational change thats affected us.

50 I've been in this centre for 18 months moving to this job was a change I wanted to do. I
51 wanted to see another side of the university.

52 I wanted to see what was going on . What about the HUB?

53 I think that's part of the problem with the HUB, my understanding is that like SID everything
54 will be in one place. Apart from moving Registry functions there no one seems to know
55 whether its going to work. I think personally for our Centre because everything is in one
56 place I can't see things changing.

57 that much, I can't see any possibility of moving my role because of the physical proximity
58 works so well.

59 it's better for people to be able to just pop their head in. But for Registry functions I think its a
60 great idea and not just its closer than Vernon Square but because there's a couple of desks
61 there.

62 Impact of technology on my job in general. That's a very important question as well. When I
63 moved from my other job to this one the most obvious change was the move from paper to
64 screen based systems. When I arrived we were getting applications still on paper, moving
65 piles of things around bringing them up I remember piles of History applications, so that's the
66 way I used to do it.

67 When I first started there was no system for keeping track on where the applications were.
68 When me and my manger started we were using Excel mostly just to keep track of things
69 and it was that simple and that clunky then the UCAS system came along and was much
70 better at keeping records of applications eventually they started duplicating every application
71 online as well so it was another way to check that so we would be able to get things done
72 quicker so we could get them to people off site a lot quicker and that's eventually progressed
73 to XXX University moving totally online.

74 The students will only look at them online this took a long time there has been change but
75 people started talking about it for three or four years beforehand

76 How did you learn about each thing as it came in? Because what you know now must be a
77 lot more and a lot more complicated than moving piles paper around so there must have

78 been a progression in your development from someone who dealt with lots of paper to
79 knowing what you know now?

80 It wasn't that easy mostly it was just playing around with them. Obviously there were training
81 sessions but generally it was through using them and having to use them - example of new
82 exam board reports and whether people are willing or not to adopt them without having a
83 test period.

84 When you have to use it that's when you learn it. There are some early adopters of
85 technology here.

86 Oh I think it's been a hinderance to be honest even though it's useful for the Registry I think
87 for being able to submit forms and defined jobs its useful but even though its taken some of
88 those Registry jobs but I think because of the distance its created to the Registry and part of
89 my workload has gone I still don't feel very positive about it. And personally its just another
90 system to log into.

91

92 Which is happening more and more I'm not sure why institutions think that's a good idea now
93 we have myXXX University as well there's MyView as well, there's so many different things
94 now they are talking about MyXXX University for students and SID, there's a massive issue
95 there.

96 Its just another system to log into that wasn't email which I've been using for years

97 When the argument is made - to use SID - I can see the benefit

98 Were the benefits explained to us? You can see the benefits of logging into one system so
99 no the benefits of SID were never explained. The benefits were never made clear enough to
100 support staff.

101 Because part of it was for the right questions to go to the right places and didn't spend three
102 weeks going around with emails but SID still relies on the expertise behind to put the
103 question in the right place or to answer the question correctly.

104 There is not the clear rationale between using SID and giving up email in a similar way that
105 the UCAS system replaced paper where you can logically see why you would use the UCAS
106 system, with SID it's a little more gray area. That's the point I was making most people don't
107 adopt new technology until they have to, so yeah maybe it won't be totally successful.

108 Because we will still have emails. XXX University

109 But it's now a kind of double system. SID hadn't changed my relationship with students but it
110 has changed it with people around the institution.

111 My work has not changed as a result of SID

112 Staff need to have more direct engagement with it (SID) and be more involved much earlier
113 than they have been, people on grade 5 or grade 6 don't tend to get involved with
114 consultations.

115 Most of the time they don't consult the people actually doing the work. They need to speak to
116 people who are actually engaged with the students. Change is quite often driven from above.

117 We should be consulted earlier on because we will see things that others won't notice. They
118 will have different priorities.

119 Even though efficiencies need to be made people need to be consulted. SID has been
120 driven by student satisfaction the change from paper applications to online UCAS
121 applications was driven by the need to deal with applications faster than before which they
122 thought was affecting student numbers yeah so if its driven from above it makes sense to em
123 that if everyone who was involved are involved with these processes but for some reason its
124 not done.

125 Do they keep the decision making to themselves, part of a power thing?

Appendix K SID Documents

Appendix L: SID32

XXX University, London
One Professional Service Change Proposal

Author:	XXX XXX
Position:	Registrar
Date:	23 June 2017
Version:	V6.3
Filepath/Location:	

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1. INTRODUCTION

- 1.1. We are at a time of unprecedented change in Higher Education. The massification of the sector means that more students than ever are able to access Higher Education, both in the UK and globally. Institutions compete and collaborate across national borders, delivery models are changing to embrace new learners and new ways of learning. The Higher Education and Research Act 2017 has been passed and opens the sector further to greater competition through private providers. Government funding to the sector has been eroded over successive policy changes over the last decade and the burden of fees now largely falls to the student. The rate of change has been and will continue to be significant.
- 1.2. There are positives that come from that disruption. More people than ever before have access to higher education and while there are still access and equality issues, 23m students will enter the global higher education system in 2015-16. Higher Education is a medium through which more minds are engaged, more people developed and greater critical thinking skills shaped than ever before. The impact of research, as we become globally connected has the potential to address cross and inter-disciplinary global challenges.
- 1.3. Against that backdrop, there is a need for innovation and service improvement in professional support functions. This draft change proposal outlines an approach to change that will bring new ways of working that best support student and academic endeavour. It is just one element of a plan over the period to August 2018 that is the start of a journey to best position XXX UNIVERSITY to become adaptive, resilient, customer-focused, efficient and effective while maintaining the unique perspective that XXX UNIVERSITY brings to the world¹.

2. SITUATIONAL ANALYSIS AND RATIONALE FOR CHANGE

- 2.1. That the Higher Education sector is experiencing unprecedented change is not new. It is a message that we have heard many times in the sector and this, to some extent acts to desensitise us to the internal and external opportunities and challenges of those changes. That is a potentially damaging perspective and it is my firm belief that this truly is a tipping point that could determine the future of both the sector and of XXX UNIVERSITY and that we fail to respond at our peril.
- 2.2. The sector is increasingly massified and (whether we like it or not) marketised. While the UK domestic sector has seen relatively modest growth since the turn of the century, the global flow of international students has increased rapidly. Demand for higher education will continue to grow but the pace will slow (Lawson et al 2013), the distribution of students and the mobility of students will also change as Asia continues to rise and new middle-classes seek to remove barriers to education for their children.

¹ **One Professional Service: Planning for the period to August 2018** identified 7 Strategic Priorities as follows: 1. Strategy on a Page; 2. Supporting New Heads of Department through transition; 3. Professional Services Realignment; 4. Efficiency and Effectiveness review; 5. Updated Planning Framework; 6.

- 2.3. Current policy changes in the form of the HE & Research Act 2017 signal the further withdrawal of government funding for the sector, with the burden of financial responsibility shifting to the student. Notably, the HE bill also opens the doors to private providers to confer degrees in the UK, exposing the sector to commercial competitors who, newly emerging and agile, are likely to come with few of the constraints that burden historical institutions.
- 2.4. New models and modes of learning are disrupting traditional teaching. Inward mobility is slowing while Transnational Higher Education (TNHE), the mobility of programmes and institutions across national boundaries, is increasing (perhaps advantageously given Brexit and the threat of greater immigration controls). Continual technological developments are exposing traditional institutions to competition from providers of digital learning platforms, providing new opportunities for students to blend their own learning experiences.
- 2.5. XXX UNIVERSITY is unashamedly value-focused with a commitment to social justice, equality and diversity. Continuing to thrive in an increasingly marketised, regulated sector presents specific challenges for the institution as those challenges are not just business challenges – they are often at odds with the very values of the organisation. A commitment to leadership that is distributed and to consultation as a way of working means that change can be complex and potentially slower than others in the sector. This creates an inherent risk and one that needs careful thought if we are to remain agile and responsive to changes, particularly in the external policy environment.
- 2.6. An updated vision and strategy document is in place, one that captures the essence of XXX UNIVERSITY, ‘a specialist global institution with regional experience, providing a balanced portfolio and maintaining excellence in all areas of research and scholarship’. There is a need for ownership of that strategy throughout the organisation, distilling key messages; operationalising the strategy and linking deliverables to organisational performance indicators.
- 2.7. There has been a sustained period of focus on financial viability. Executive Board and Board of Trustees have focused efforts on producing 5% returns with the intention of building resilience and reserves for reinvestment into strategic priorities. That focus has created an impetus for change. Bringing together the refreshed strategy with that driver for change presents the very best opportunity for us to define a future for XXX UNIVERSITY that resonates with and gains the support of the XXX UNIVERSITY community.
- 2.8. Our academic community is restructuring: removing a tier of management and enabling leadership and decision making to be embedded more deeply into the institution. In that context, it is essential that Professional Service staff are also realigned to the needs of students, academic colleagues and our institutional vision and strategy.
- 2.9. I genuinely believe that the primary function of professional services staff is to support students and academic colleagues as our primary stakeholders, a strong professional services function is pivotal to the success of an institution. Professional services staff are no longer ‘administrators’. They are teams of highly-qualified, experienced individuals, specialists in their areas and able to impact and influence the outcomes of students and the effectiveness of academic colleagues. Over time there has, quite rightly, been a blurring of the traditional distinction between academic and professional staff and PS staff increasing work in the ‘third space’, designing technology-enhanced teaching platforms, delivering outreach and engagement, understanding and navigating increased finance and funding complexity, preserving the institution through massification and commercialisation.

- 2.10. My initial impressions of professional services are that they are a team under significant pressure. Attrition at 12.2% (excluding voluntary redundancy) is markedly above the sector average of 9% and while this can be partially attributed to the use of fixed term contracts ahead of any structural change in the service, it is nonetheless high (attrition in academic staff sits at 2.8%). The 2016 staff survey showed that 36% of staff in professional services planned to leave the School in the next twelve months (this figure was 11% for academic staff).
- 2.11. Having said that, HESA data indicates that 24.4% of annual income is spent on Professional Service salaries. That places us 26th highest in terms of spend of the 163 UK institutions (for Academic Salaries, at 37.5%, we are 5th highest in rank for spend as a percentage of income).
- 2.12. There are two Professional Service staff structures at XXX UNIVERSITY. The majority of staff sit centrally, reporting ultimately to the Registrar through ten Directors. The senior structure is flat and this has, in some areas, created silos in the operating environment. This structure has, arguably, also made it difficult for staff to progress by limiting senior professional service portfolios and creating depth but not breadth of knowledge. Additionally, there is a distributed team of Professional Service staff in faculties, with reporting lines through to the Dean. Communications between the two teams are not always effective. Arguably, this has caused challenges in both process and culture and the concept of 'One Professional Service', a joining up of professional service staff across the School into one structure, is one that has already seen enthusiasm at Executive Board. Academic restructuring – removing faculties and, with them, a layer of management – has further driven an imperative to realign support more effectively to new Academic Departments.
- 2.13. There is a need for investment in staff development so that teams are better equipped to manage complexity in the changing regulatory environment as well as in new technologies. A core theme of the proposal will be skills and knowledge development which demonstrate a real commitment to invest in professional services so that they are equipped to deliver effectively and confidently. We are in the process of commissioning and rolling out a new Emerging Leaders and Managers Programme across professional services and will seek to invest further in a programme of development that supports staff to transition to new roles and to meet the challenges of a highly adaptive sector.

3. VISION FOR THE FUTURE

- 3.1 Over the past 18 months, there have been some outstanding examples of professional staff performance.
- 3.2 As XXX UNIVERSITY celebrated ~~xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx~~ was completed on time and to budget, and has been shortlisted for a Royal Institution of Chartered Surveyors award in the 'Building Conservation' category. The opening of the XXX also allowed for the launch of the Western Student Hub, a single point of contact for student queries. This is a step change in provision from the previous dual locations of student services between Russell Square and Vernon Square, and opens up the possibility for further service and faculty integration. The centenary year also marked the launch of the Questions Worth Asking £100m fundraising campaign, and more than 5,000 people attended the Centenary Alumni Weekend in September 2016.
- 3.3 The past 18 months has also seen the launch of several new online systems, including online annual leave, sickness absence management, expenses and procurement to improve business

processes. A new web skin has refreshed the main website and created a mobile-friendly experience which adapts to different devices. The launch of the staff and student intranet systems have delivered new communication channels. The Research Library has also implemented the 'digital first' acquisition policy for teaching materials. The implementation of this policy is aligned with the Library's aspiration to reduce the amount of space dedicated to physical materials, allowing for more study space. Research income has grown from £4.34m in 2014 to £6.6m at the mid-point of 2017. Research support has significantly improved, including a dedicated workshop series, funder visits and support for pathways to impact development. XXX UNIVERSITY has also responded to some globally-recognised issues, securing major gift support for a Refugee Scholarship programme and producing sector-leading policies in response to gender-based violence.

3.4 These are just some of many examples which demonstrate the impact of professional service support on student and academic lives. There are many more examples and professional services colleagues should be proud of those areas of excellence. However, as set out above, professional services need to adapt to the external environment.

3.5 There is another very strong imperative for change. Fee paying students rightly expect more from their time at university and professional services staff contribute to those elements of the student experience that can be shaped by excellence in customer service. Student interactions with their department, the Careers Service, Advice & Wellbeing, Registry and Admissions, as well as other professional services areas, are a fundamental part of their experiences of student life. The sector is opening up to new and agile providers. New modes of delivery and pedagogy are disrupting teaching and learning practice such that experienced technologists and learning practitioners have the ability to contribute directly to how students interact with their learning. More than ever before, the role of professional service staff is pivotal to the student journey.

3.6 Four concepts underpin the future structure of professional services:

- that the relationship between faculty and support staff is strongest in a decentralised model.
- that students identify most closely with their subject home or discipline
- the notion of 'One Professional Service'
- business partnering and the notion of academic department management teams

Proximity

3.7 Put simply, numerous studies indicate that faculty members show greater levels of satisfaction and a greater level of respect for professional service colleagues when support functions are located at the level of the individual subject or discipline area. Undoubtedly, part of this is about the development of individual relationships and ease of access but it is also about transparency and accountability.

3.8 There is also a body of largely anecdotal evidence that indicates that student satisfaction is greatest when students gain support at a departmental level; that they identify more closely with their discipline than with the institution as a whole. For a niche and relatively small institution, this may be slightly less pronounced. However, support that recognises the unique identity of our disciplines will be a fundamental principle of the review.

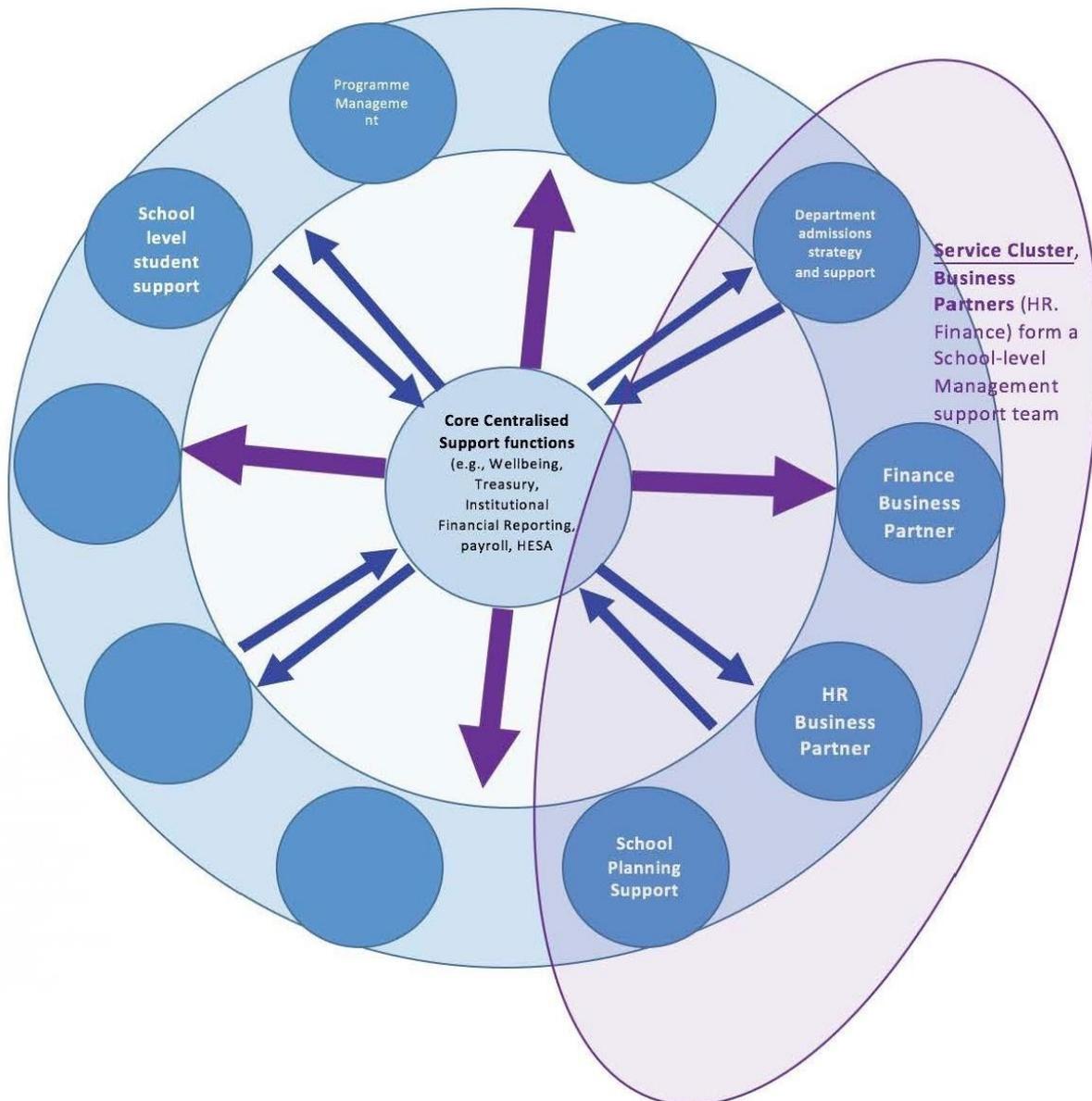
One Professional Service

3.9 The notion of 'One Professional Service' targets the bringing together of professional service

staff into one coherent support function. It is also fundamentally linked to the idea of bringing professional staff closer to the academic community.

- 3.10 These principles need to be balanced with a limited resource envelope. Restructuring will not add to the professional support cost-base and there are anticipated savings in year 2, particularly as we improve processes and systems. We are targeting a saving of £750k each year from year 3.
- 3.11 Staff will be aware that in the majority of cases, we have held vacancies over the previous 4-6 months. £2.579m was spent on agency staff in 2015/16, and the mid-year spend in 2016/17 stood at £1.295m. It is our intention to look to reduce the overall spend on agency staff to make the targeted savings. There is no intention for compulsory redundancies (see section 4 for further details) and where staff are asked to take on new elements of roles, training and support will be provided. The real change will come from new, improved, agile, customer- centric ways of working; embedded behavioral competencies; better communication and a clear focus on the development of people across the organisation.

Business Partnering and School Management Teams



- 3.12 An ambition to partner with Academic colleagues underpins the proposal. This will be achieved, where structurally possible, through business partnering. Each new Head of Department will be supported by a Departmental Management Team. This will be a consistent but shared management support team that will come together to provide core business support and will include: finance business partner; HR business partner; and senior administrative support to coordinate programme and student support in the Department.
- 3.13 We are working with the Estates team to develop local hubs within new schools with the objective of locating academic and student support as close to academic colleagues and students as possible.

4 THE NATURE OF CHANGE

- 4.1 It is anticipated that the end-to-end change process will take in the region of 15-16 months. A significant period of time will be devoted to a structured consultation process. This places professional services staff impacted by the change at the centre of consultation, alongside their trade unions.
- 4.2 Project change team: The Registrar will act as project sponsor and lead and will be supported by a core change team consisting of: an Organisational Change Programme Director, a Project Manager and support from HR, internal communications and others as required.
- 4.3 It is proposed that the restructuring is run in two distinct phases: the first, to establish the overall high level structure; and the second, a series of several parallel change programmes to shape the new functional areas (and including, where possible, leading input from the Directors appointed to these new areas), based around the four concepts outlined above (para 3.6). Annex 1 sets out the high-level structure that is proposed. This will be followed by a series of parallel change programmes across Professional Services, which will commence with consultation with affected staff, stakeholders and the trade unions, from September 2017. Given the significant variation in the scale and complexity of these change programmes, it is anticipated that they will take differing lengths of time to conclude. Consultation on these programmes and their progression will be managed independently but there will be an overarching PS change programme board (chaired by the Registrar, as change sponsor) to co-ordinate this activity and maintain overall integrity. Individual timelines will be established for each programme during its specific design phase and, although these are likely to vary, the aim is to conclude all within the overall timeline to 31 July 2018.
- 4.4 Broadly, the restructure proposes to focus services into 6 areas (nomenclature not yet decided, titles are indicative):
- Resources and Planning
 - Human Resources
 - Research, Enterprise, Innovation and Partnerships
 - Development, External Engagement and Policy
 - Student and Academic Services
 - Library
- 4.5 Key to the proposal is the grouping of services under 3 new Directorates: the first brings together Student and Academic Services into one service, the second groups Business Support functions into one service. A new directorate brings together existing external engagement activity including Alumni and Development into an area that can

provide a

strategic response to the external policy environment while promoting and positioning XXX UNIVERSITY work more coherently and for maximum impact. This priority area would also see more a more proactive approach to managing difficult communications and would work to position XXX UNIVERSITY more strategically in a changing sector. Human Resources remains a separate directorate, reflecting that people are, in every aspect of our work, pivotal to XXX UNIVERSITY success. The research and Innovation portfolio is expanded in line with our research-intensive status and critically includes the coordination of partnerships. Some areas, e.g., an international office function, are yet to be determined and to some extent will be based on the portfolio of the third Pro-Director.

- 4.6 Other changes include: merging the formal Secretarial function into the Registrar role to create one line of communication with the Board of Trustees; bringing together events staff into one centralised service and confirming the separation of Library and IT services.
- 4.7 My initial view is that spend on professional services staff has been largely focused on business functions and not on student facing activities (with the exception of the library which appears to be a significant outlier in terms of resource allocation). I have commissioned some work from Tribal to test this perspective (and will share the output when it is available). The restructuring will, in particular, seek to redress some of this perceived imbalance, should it be confirmed.
- 4.8 A programme of staff development, particularly aimed at supporting professional service staff to transition to new structures, and potentially to new roles, will be a fundamental part of change. We are, for example, in the process of engaging the LH Martin Institute at the University of Melbourne to develop and deliver a programme of embedded leadership development accessible across the University and aiming to provide development for staff at all levels.
- 4.9 A key aspect of the proposed change is the development and implementation of a behavioural competencies framework. XXX UNIVERSITY professional service job descriptions have been driven by a focus on technical competencies. A key aspect of change will be to embed behavioural competencies which promote more effective customer focus, greater self-awareness and self-leadership, a culture of agility, improved communication and collaboration and a real focus on the development of individuals and teams. The intention is to introduce a behavioural competencies framework at Director level and to consult widely about how this may be extended more generally across Professional Services.
- 4.10 As stated above, the change process will be undertaken with a view to avoiding compulsory redundancies. To facilitate this, vacancies have been held where possible and it is proposed that this approach is continued (with fixed-term contracts being extended, where necessary).
- 4.11 It is anticipated that, other than in exceptional circumstances, staff employed on open-ended contracts will either continue in a role which is the same as (or very similar to) that which they are currently undertaking or will be offered suitable alternative employment in an appropriate area of work at the same grade. The implementation of the following steps throughout all phases of the change programme will help to achieve this, while ensuring equality of opportunity:
 - i. A member of staff on an open-ended contract will be matched to a role in a new structure at the same level (grade) on the basis of there being, at least, a 70% match between the job description for the new role and that of his or

her substantive role.

Where more than one member of staff matches to a new role, a process of seeking expressions of interest in this role and other potential matches that are available may be undertaken and, should it be necessary, there will be a competitive selection process between those matching to the new role.

- ii. Members of staff cannot be matched to a role at a higher level (grade) than their substantive role.
- iii. Following the matching process, members of staff on open-ended contracts who have not been matched to a role in the new structure will be invited to express an interest in an unfilled post within the change programme for their area at their substantive level (grade), should such a post be available, and will be interviewed for the post, subject to their meeting the minimum requirements (i.e. the member of staff is considered to have met the essential criteria for the post or to have the potential to do so within six months of commencing in the post with appropriate support).
- iv. Posts in new structures that are not filled through the above processes will be advertised (either internally in the first instance or concurrently). Priority interviews will be arranged wherever a member of staff on an open-ended contract who have not been offered a suitable alternative post as a result of the processes outlined above (or a member of staff on a fixed-term contract with two years' continuous service with the School and currently in post at the grade of the post being advertised) applies for the post and meets the minimum requirements. Members of staff that have not unreasonably rejected offers of suitable alternative employment, may also apply for posts at a lower grade and seek priority interviews. Should they be appointed, they will be entitled to pay protection for twelve months.

5 EXPECTED OUTCOMES

- 5.1 This change proposal is written in parallel with a series of work streams that seek to improve our systems, processes and infrastructure. Collectively that programme defines a period of change that will:
 - engage teams on the future strategy of the institution;
 - improve the experience of students;
 - improve systems and processes across the institution making daily activities more effective, efficient and easy to navigate for students and for academic colleagues;
 - reducing silo working, improve the relationships between professional service and academic colleagues
 - improve data gathering, data management and reporting;
 - create a learning culture and ensure future agility in the face of continued change
- 5.2 Collectively, those activities will also improve our reputation and standing, attracting high calibre students.
- 5.3 The vision for the future is one where activities and resources are driven by the experiences of our students and the provision of support to our academic community that allows them to thrive in an increasingly complex and competitive research and teaching environment.

PROFESSIONAL SERVICES CHANGE TIMELINE

JUN 17 JUL 17 AUG 17 SEP 17 OCT 17 NOV 17 DEC 17 JAN 18 FEB 18 MAR 18 APR 18 MAY 18 JUN 18 JUL 18 AUG 18

Phase 1a - Director level change

Phase 1b - Recruitment to unfilled Director-level posts

Phase 2 - Parallel change programmes

To include consultation on parallel change programmes within the new organisational areas set out in Annex 1. These change programmes may commence and conclude at different times, depending on the circumstances, with the aim that all are finalised by 1 August 2018



ONE PROFESSIONAL SERVICES CHANGE PROPOSAL
APPLICATION OF CHANGE PROCESS TO DIRECTOR-LEVEL CHANGE PROGRAMME

This Annex sets out how the change process set out in Section 4 of the Change Proposal will be applied to Director-level staff in Professional Services.

Annex 1 shows that there are posts at three different hierarchical levels in the proposed Director-level structure for Professional Services. In accordance with the job matching process set out in 4.11 of the change document, Directors of Professional Services have been matched against available posts in the new structure at each level as follows:

Level 1

Registrar and Secretary (COO) – the current Registrar has been matched to this post.

Level 2

Deputy COO (Resources and Planning)

Deputy COO (Student and Academic Experience)

These posts are at a higher-level than those of a Director of Professional Service, hence there was no match to these posts.

Level 3: matched posts

Director of Estates and Facilities – the current Director of Estates and Facilities has been matched to this post. Director of Finance – the current Director of Finance and Planning has been matched to this post.

Director of Research, enterprise, Innovation and Partnerships – the current Director of Research and Enterprise has been matched to this post.

Director of Human Resources – the current Director of Human Resources has been matched to this post.

Level 3: unfilled posts (where there was no match)

Director of Library Services

Director of Information

Technology Director of Planning and Governance

Director of Development, External Engagement and Policy

Next steps

- i. The Directors of Professional services that are unmatched will be invited to express an interest in an unfilled post at their level (level 3) and will be interviewed for the post, subject to their meeting the minimum requirements (i.e. the member of staff is considered to have met the essential criteria for the post or to have the potential to do so within six months of commencing in the post with appropriate support).
- ii. Should any Director-level post in the new structure remain unfilled following the process described in (i), the post will be advertised internally within the School or concurrently (internally and externally). The two level 2 Deputy COO posts will be advertised internally within the School in the first instance. A priority interview will be arranged should an unmatched Director of Professional Services apply for any of these posts and meet the minimum requirements (i.e. the member of staff is considered to have met the essential criteria for the post or to have the potential to do so within six months of commencing in the post with appropriate support).

COMMUNICATIONS TIMELINE

DATE	EVENT	WHO	DETAIL
PHASE ONE			
STRUCTURE A: 12/04/17 – 14/07/17 Objective: move from functions to a proposal for consultation, setting out roles at top-level			
Communications Strategy – 10/04/17 – 21/04/17			
10/04/2017 – 21/04/2017	Draft communications strategy	Project Manager, Registrar	Produce communications strategy
Informal Consultation process – 12/04/2017 – 20/06/2017			
12/04/2017 – 21/04/2017	Refining thought on functional areas	PS	Blue column structure chart
24/04/2017	Finalise functional areas	DoPS	Discussion at DoPS Away Day
02/05/2017 – 05/06/2017	Design G10 roles and draft formal proposal for consultation	Registrar, Project Manager, HR	Design G10 roles and draft formal proposal for consultation
22/05/17	Executive Board induction session with new Heads of Department	EB inc new HoDS	Present at afternoon EB induction session
19/05/2017	Email	All Professional Service staff	Invitation to the Open Meeting on 15 th June
02/06/2017	Meeting	Registrar, HR	Confirm arrangements for transition process
06/06/2017	Deadline	DoPS, HR	Confirming current DoPS JDs
06/06/2017	Meeting	DoPS, Registrar	DoPS advised of timeline
09/06/2017	Deadline	Registrar	Approval of new DoPS JDs
13/06/2017	Deadline	HR	DoPS to be matched to new JDs
14/06/2017	One to one meetings	DoPS, Registrar, HR	DoPS advised of job matching, or alternative where there is little change
16/06/2017	Open Meeting	All Professional Service staff	Meeting to relay proposed functional shape and timeline
16/06/2017	In confidence	DoPS	Change document sent to DoPS in confidence
Notify UCU 09/06/2017 or 21/06/2017			
09/06/2017	Informal meeting with Unions	Representatives from UCU and Unison, HR	Informal meeting about change process
16/06/2017	Meeting with Unions	Registrar, HR, Representatives from UCU and Unison	Formal Stage 3 managing change consultation meetings with TUs
Formal Consultation process – 23/06/17 – 24/07/17			
23/06/2017	Start of formal 30-day consultation	All staff	Email announcing start of formal consultation on PS change (including organisational structure) with whole School opens (for 30 calendar days) Include dedicated email address for staff to send queries
23/06/17 – 21/07/17	Change consultation meetings	Registrar, DoPS, HR, Redeployment	Meetings with groups of PS staff (and follow-up with TUs) as required to discuss DCP including: <ul style="list-style-type: none"> • Future strategy • Encourage consultation and feedback • Process and support available • Consultation on proposed structures Establish a Working Group Focus groups with other stakeholders (academics and students) to discuss DCP, including: <ul style="list-style-type: none"> • Future strategy • Encourage consultation and feedback

Annex 4: Communications Timeline

			<ul style="list-style-type: none"> • Process Consultation on proposed structures
23/06/17 – 21/07/17	Information sessions	HR, Redeployment, Professional Service and Faculty Admin staff	Information sessions to discuss the change management process, the redeployment policy and process
07/07/2017	Email	All staff	Email reminding staff of the consultation and encouraging feedback
23/06/17 – 21/07/17	Private consultations with potentially affected staff	Registrar, DoPS, HR, Redeployment	Sessions with DoPS
24/07/2017	Email	All staff	Email announcing the closing of the formal consultation process.
26/07/2017	Email	All staff	Email announcing outcome of consultation and next steps

**GLOSSARY
OF TERMS**

Agile providers	Institutions with simplified processes and systems. They are forward-thinking and able to respond quickly to change to modernise their approach.
Commercial competitors	Governments are moving towards market-based models for the delivery of education services allowing new competition from the private sector with traditional universities.
Commercialisation	The changing higher education market has put universities under pressure to become agile and revenue-generating, while still being able to appeal to prospective students.
Decentralised model	Key services are located within departments, which improves relationships and accessibility to these services for academic staff and students.
Marketisation	The international higher education sector is increasingly becoming more like a marketplace, where students are considered to be more like consumers. To further cement this viewpoint, in 2015 the government passed legislation which meant that consumer protection law was extended to include higher education providers.
Massification	The process of bringing education to a global audience, such as through online learning.
Private Providers	Higher education providers who rely on private sources of income or are for-profit organisations. These might be run by companies who have bought into degree-awarding institutions in the UK, or are working in collaboration with public institutions.
Silo working	Departments working in isolation, without engaging in the work of other teams and departments across the School.

Appendix M Email from IT Manager

5/12/2018
F0184662

Mail - Re: Call Update Report, Call Reference

Re: Call Update Report, Call Reference F0184662

1 message

XXX XXXX <XXXX@XXXX.ac.uk>
11 May 2018 at 12:32

To: XXXX XXXX <XXXX@XXXX.ac.uk>

Hello XXXX

No problem. I only check the XXXX newsletter to see if there are any concerts, exhibitions, or talks coming up and I only take the time to read it on occasional weeks.

I was more talking about one of my bugbears, which is that in the 21st century IT systems underlie almost everything an organisation (or increasingly an individual) does. Yet here at XXXX and I'm sure in some other places, the XXXX tends to initiate structural and functional changes without any advance consultation with IT (and I do mean specifically with meeting IT staff to discuss implications and system implementations that may help, not calling Town hall meetings for optional attendance and largely symbolic consultations). Then the changes happen on the ground, staff can't work efficiently because the systems don't match, they log a call, and we're left playing catch up.

I'll stop ranting now ;-)

Cheers XXXX

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